

MERCK AND COMPANY, INC.

126 E. LINCOLN AVE.

Rahway/Union County

NSD 00131 7064

Merck and Company, Inc. is an active facility which is involved in the manufacture of pharmaceuticals. They have been operating at this site in Rahway, Union County since 1903. Process wastewaters undergo pretreatment prior to discharge to the Rahway Valley Sewage Authority. Other wastewaters, which include cooling tower blowdown, non-contact cooling waters and plant runoff, are discharged without treatment, to Kings Creek via 3 outfall pipes.

This company is listed as a TSD (Treatment, storage and Disposal) facility. Hazardous waste is stored on site in containers and tanks; non-hazardous waste is treated in an incinerator on site.

A medium priority rating has been assigned to this facility as a result of the numerous chemical spills which have occurred on site. Surface water and air contamination from spills has been observed, yet no analytical data exists to confirm contamination. The potential for soil and ground water contamination exists.

Submitted by

Anne DeCicco - Env. Specialist  
NJDEP - HSMA  
RCRA 3012 Project





# Potential Hazardous Waste Site

## Preliminary Assessment

Merck and Company, Inc.  
Rahway/Union County  
126 E. Lincoln Ave.

EPA ID # NJD001317064



POTENTIAL HAZARDOUS WASTE SITE  
PRELIMINARY ASSESSMENT  
PART 1 - SITE INFORMATION AND ASSESSMENT

I. IDENTIFICATION  
01 STATE 02 SITE NUMBER

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site) Merck and Company, Inc.		02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER 126 E. Lincoln Avenue			
03 CITY Rahway	04 STATE NJ	05 ZIP CODE 07065	06 COUNTY Union	07 COUNTY CODE	08 CONG DIST
09 COORDINATES LATITUDE 40° 36' - 12"		LONGITUDE 74° - 15' - 24"			

10 DIRECTIONS TO SITE (Starting from nearest public road)

Take Rt. 1 North to Rahway. Merck and Co., Inc. is on the left side.

III. RESPONSIBLE PARTIES

01 OWNER (If known) Merck and Company, Inc.		02 STREET (Business, mailing, residential) PO Box 2000			
03 CITY Rahway	04 STATE NJ	05 ZIP CODE 07065	06 TELEPHONE NUMBER (201) 574-4000		
07 OPERATOR (If known and different from owner)		08 STREET (Business, mailing, residential)			
09 CITY	10 STATE	11 ZIP CODE	12 TELEPHONE NUMBER ( )		
13 TYPE OF OWNERSHIP (Check one) <input checked="" type="checkbox"/> A. PRIVATE <input type="checkbox"/> B. FEDERAL: _____ (Agency name) <input type="checkbox"/> C. STATE <input type="checkbox"/> D. COUNTY <input type="checkbox"/> E. MUNICIPAL <input type="checkbox"/> F. OTHER: _____ (Specify) <input type="checkbox"/> G. UNKNOWN					

14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply)

☒ A. RCRA 3001 DATE RECEIVED: 2 / 22 / 83 MONTH DAY YEAR ☐ B. UNCONTROLLED WASTE SITE (CERCLA 103 c) DATE RECEIVED: / / MONTH DAY YEAR ☐ C. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION <input checked="" type="checkbox"/> YES DATE 2 / 2 / 77 MONTH DAY YEAR <input type="checkbox"/> NO		BY (Check all that apply) <input checked="" type="checkbox"/> A. EPA <input type="checkbox"/> B. EPA CONTRACTOR <input type="checkbox"/> C. STATE <input type="checkbox"/> D. OTHER CONTRACTOR <input type="checkbox"/> E. LOCAL HEALTH OFFICIAL <input type="checkbox"/> F. OTHER: _____ (Specify) B2 CONTRACTOR NAME(S): _____			
02 SITE STATUS (Check one) <input checked="" type="checkbox"/> A. ACTIVE <input type="checkbox"/> B. INACTIVE <input type="checkbox"/> C. UNKNOWN		03 YEARS OF OPERATION 1903 BEGINNING YEAR ENDING YEAR <input type="checkbox"/> UNKNOWN			

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED

These substances were involved in spill events: Ammonia, Thiobendazole (TBZ) Cobalt Catalyst, Sodium Thiocyanate, ortho-dichloro benzene, M-xylene, sulfuric acid  
Refer to attachemt A2

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION

Possible contamination of soil and surface waters (Kings Creek & Rahway River) from numerous chemical spills.  
Possible groundwater contamination from chemical spills. Refer to attach. A2

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents)  
☐ A. HIGH (Inspection required promptly) ☒ B. MEDIUM (Inspection required) ☐ C. LOW (Inspect on time available basis) ☐ D. NONE (No further action needed, complete current disposition form)

VI. INFORMATION AVAILABLE FROM

01 CONTACT Jim Bell, Hazardous Waste Engineer		02 OF (Agency/Organization) NJDEP - Solid Waste Administration		03 TELEPHONE NUMBER '609' 292-9159	
04 PERSON RESPONSIBLE FOR ASSESSMENT Ann DeCicco, Envir. Specialist		05 AGENCY NJDEP	06 ORGANIZATION HSMA	07 TELEPHONE NUMBER '609' 292-1210	08 DATE 12 / 2 / 83 MONTH DAY YEAR



POTENTIAL HAZARDOUS WASTE SITE  
PRELIMINARY ASSESSMENT  
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE 02 SITE NUMBER

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

<b>01 PHYSICAL STATES</b> (Check all that apply) <input checked="" type="checkbox"/> A. SOLID <input type="checkbox"/> B. POWDER, FINES <input type="checkbox"/> C. SLUDGE <input type="checkbox"/> D. OTHER _____ (Specify) <input type="checkbox"/> E. SLURRY <input checked="" type="checkbox"/> F. LIQUID <input type="checkbox"/> G. GAS	<b>02 WASTE QUANTITY AT SITE</b> A1 (Measures of waste quantity must be independent) TONS <u>63.7</u> CUBIC YARDS <u>710</u> NO. OF DRUMS <u>4117</u>	<b>03 WASTE CHARACTERISTICS</b> (Check all that apply) <input checked="" type="checkbox"/> A. TOXIC <input checked="" type="checkbox"/> B. CORROSIVE <input type="checkbox"/> C. RADIOACTIVE <input type="checkbox"/> D. PERSISTENT <input type="checkbox"/> E. SOLUBLE <input type="checkbox"/> F. INFECTIOUS <input type="checkbox"/> G. FLAMMABLE <input checked="" type="checkbox"/> H. IGNITABLE <input type="checkbox"/> I. HIGHLY VOLATILE <input type="checkbox"/> J. EXPLOSIVE <input checked="" type="checkbox"/> K. REACTIVE <input type="checkbox"/> L. INCOMPATIBLE <input type="checkbox"/> M. NOT APPLICABLE
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III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE			
SOL	SOLVENTS	1053.5	Tons	This amount determined from A1
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS	202	Tons	This amount determined from A1

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/ DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
BAS	Ammonia	7664-41-7	SPILLED SUBSTANCE REFER TO A2		
OOC	Poly-Chlorinated Bipenols	1336-36-3			
MES	Cobalt	7440-47-3			
OOC	Sodium Thiocyanate	999			
SOL	Chlorform	67-66-3			
SOL	Methylene Chloride	75-09-2			
SOL	1,1,2,2 Tetrachloroethane	79-34-5			
SOL	1,4 Dichlorobenzene	106-46-7			
SOL	Formaldehyde	50-00-0			
SOL	Aniline	62-53-3			
SOL	Benzene	71-43-2			
SOL	Toluene	108-88-3			
OOC	Propylene Oxide	75-56-9			
OOC	2-Chlorophenol	95-57-8			
OOC	Phosgene	75-44-5			
HES	Zinc Powder/Zinc Chloride	7440-66-6			

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports.)

B2, - NJDEP-Division of Water Resources; Central file: Kathy Locane 292-5602  
General Inf.-I: Industrial Survey Project: Rose Tuccillo 984-3026  
A1,2, General Info: NJDEP-Division of Waste Management-Tony Cavalier: 292-5196  
Additional Spill Incidents: EPA File, Paul Elliot, EPA, Edison, NJ

GENERAL INFO  
I & A2



POTENTIAL HAZARDOUS WASTE SITE  
PRELIMINARY ASSESSMENT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE 02 SITE NUMBER

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☒ A. GROUNDWATER CONTAMINATION 02 ☐ OBSERVED (DATE: \_\_\_\_\_) ☒ POTENTIAL ☐ ALLEGED  
03 POPULATION POTENTIALLY AFFECTED: 144\* 04 NARRATIVE DESCRIPTION

There have been numerous serious spill events recorded at this facility - A2  
\*Represents the population served by 38 wells in the Rahway and Linden Communities.  
[38x3.8-144.4] A5  
A6

01 ☒ B. SURFACE WATER CONTAMINATION 02 ☒ OBSERVED (DATE: 2-7-77) ☐ POTENTIAL ☐ ALLEGED  
03 POPULATION POTENTIALLY AFFECTED: 0\* 04 NARRATIVE DESCRIPTION

Othodichlorobenzene (ODCB) Was observed at the creek bed of Outfall 003. B  
In addition, there have been numerous other contaminated spills and discharges to  
Kings Creek. B \*Downstream of the Merck Site, Kings Creek flows through industrial  
zones.

01 ☒ C. CONTAMINATION OF AIR 02 ☒ OBSERVED (DATE: 10-24-82) ☐ POTENTIAL ☐ ALLEGED  
03 POPULATION POTENTIALLY AFFECTED: 125,445\* 04 NARRATIVE DESCRIPTION

A spill of 2-Mercapto-4-Methyl Thiazole occurred, which produced odors observed  
in the local community as well as the Sayreville and Old Bridge communities. Other  
odors, ie, Ammonia, TBZ have been observed also-Refer to Attachments C.  
\*Combined population of Rahway, Linden, Old Bridge and Sayreville. C

01 ☐ D. FIRE/EXPLOSIVE CONDITIONS 02 ☐ OBSERVED (DATE: \_\_\_\_\_) ☐ POTENTIAL ☐ ALLEGED  
03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_ 04 NARRATIVE DESCRIPTION

01 ☐ E. DIRECT CONTACT 02 ☐ OBSERVED (DATE: \_\_\_\_\_) ☐ POTENTIAL ☐ ALLEGED  
03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_ 04 NARRATIVE DESCRIPTION

01 ☒ F. CONTAMINATION OF SOIL 02 ☐ OBSERVED (DATE: \_\_\_\_\_) ☒ POTENTIAL ☐ ALLEGED  
03 AREA POTENTIALLY AFFECTED: 210\* 04 NARRATIVE DESCRIPTION  
(Acres)

Numerous incidents of hazardous chemical spills have been observed  
\* Acreage of Merck and Co., Inc. Facility  
ATTACHMENT A, B, AND C, AND D

01 ☐ G. DRINKING WATER CONTAMINATION 02 ☐ OBSERVED (DATE: \_\_\_\_\_) ☐ POTENTIAL ☐ ALLEGED  
03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_ 04 NARRATIVE DESCRIPTION

01 ☒ H. WORKER EXPOSURE/INJURY 02 ☐ OBSERVED (DATE: \_\_\_\_\_) ☒ POTENTIAL ☐ ALLEGED  
03 WORKERS POTENTIALLY AFFECTED: 3500\* 04 NARRATIVE DESCRIPTION

As evidence by the numerous serious spill events at this site.  
\* Number of production employees at this plant site

ATTACHMENTS A, B AND C

01 ☐ I. POPULATION EXPOSURE/INJURY 02 ☐ OBSERVED (DATE: \_\_\_\_\_) ☐ POTENTIAL ☐ ALLEGED  
03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_ 04 NARRATIVE DESCRIPTION



POTENTIAL HAZARDOUS WASTE SITE  
PRELIMINARY ASSESSMENT  
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION  
01 STATE 02 SITE NUMBER

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☒ J. DAMAGE TO FLORA 02 ☐ OBSERVED (DATE: \_\_\_\_\_) ☒ POTENTIAL ☐ ALLEGED

04 NARRATIVE DESCRIPTION

Possible flora damage, as a result of observed oil accumulations and hydrochloric and discharges of low PH along Kings Creek ATTACHMENT B-Photos

01 ☐ K. DAMAGE TO FAUNA 02 ☐ OBSERVED (DATE: \_\_\_\_\_) ☐ POTENTIAL ☐ ALLEGED

04 NARRATIVE DESCRIPTION (include name(s) of species)

01 ☐ L. CONTAMINATION OF FOOD CHAIN 02 ☐ OBSERVED (DATE: \_\_\_\_\_) ☐ POTENTIAL ☐ ALLEGED

04 NARRATIVE DESCRIPTION

01 ☒ M. UNSTABLE CONTAINMENT OF WASTES 02 ☒ OBSERVED (DATE: 2-13-80 ) ☐ POTENTIAL ☐ ALLEGED

(Spills/runoff/standing liquids/leaking drums)

03 POPULATION POTENTIALLY AFFECTED: 3500\*

04 NARRATIVE DESCRIPTION

A spill occurred as a result of a leak in a 20,000 gl. sulfuric acid storage tank. Other spills from insecure containment of wastes have been observed (ATTACHMENT E)  
\*represents production employees

01 ☐ N. DAMAGE TO OFFSITE PROPERTY 02 ☐ OBSERVED (DATE: \_\_\_\_\_) ☐ POTENTIAL ☐ ALLEGED

04 NARRATIVE DESCRIPTION

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs 02 ☐ OBSERVED (DATE: \_\_\_\_\_) ☐ POTENTIAL ☐ ALLEGED

04 NARRATIVE DESCRIPTION

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING 02 ☐ OBSERVED (DATE: \_\_\_\_\_) ☐ POTENTIAL ☐ ALLEGED

04 NARRATIVE DESCRIPTION

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

ALLEGED CYANIDE CONTAMINATION OF KINGS CREEK

(ATTACHMENT F)

III. TOTAL POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_

IV. COMMENTS

V. SOURCES OF INFORMATION (Cite specific references, e. g., State files, sample analysis, reports)

A2,B,C,D,E,F-NJDEP-Division of Water Resources, Central File: Kathy Locane

A4.C1-----NJDEP-Division of Waste Management-Yardville: 292-9592

A5-Rahway Health Department, Inspector Buchanan-(201) 381-3800

A6-Linden Health Department, Mr. Henry Gavan, (H.O.) 486-3800



State of New Jersey  
Department of Environmental Protection

Return forms to:

INDUSTRIAL SURVEY PROJECT  
P.O. BOX 251

TRENTON, NEW JERSEY 08602

ID 40009

CM 2013

20

OFFICE OF THE COMMISSIONER

SELECTED SUBSTANCE REPORT

PART I - General Plant Information

COMPLETE ONE REPORT FOR EACH PLANT SITE OR FACILITY LOCATION

1. Company Name Merck & Co., Inc.
2. Division or Plant Name Merck Chemical Manufacturing Division
3. Mailing Address (Street) 126 E. Lincoln Avenue  
(City/Town) Rahway County Union State N.J. Zip Code 07065
4. Plant Location Address (Street) Same as above  
(If not as above)  
(City/Town) \_\_\_\_\_ County \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_
5. Date Plant Began Operations At This Location 1903
6. Person to Contact Regarding this Report Tom Puchalski Title Superintendent of Environmental Control
7. Phone Number (Area Code) (201) 574-5361
8. SIC Code (Four Digit) 2833 Standard Industrial Classification (if available)
9. Nature of Business Pharmaceuticals
10. Number of Production Employees at this Plant Site 3500

11. Does this plant manufacture, process, form, repack, release, use, dispose of or store any of the selected substances shown on Table I of the enclosed instructions? (Check One) YES ☒ NO ☐

If your answer to number 11 is "YES", complete the Entire Report for your facility, sign and return.

If your answer to number 11 is "NO", complete Question 15, sign and return.

I, HEREBY, CERTIFY THAT ALL STATEMENTS MADE BY ME IN THIS REPORT ARE TRUE, COMPLETE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND THAT ESTIMATES WHERE USED HAVE BEEN MADE IN GOOD FAITH.

NAME (Print) Tom Puchalski Signature Tom Puchalski

Title Superintendent of Environmental Control Date June 23, 1980

12A. Sketch (On the reverse side of this page) or attach a copy of a map indicating the exact location of the plant site.

12B. Supply your Dun & Bradstreet number if available. \_\_\_\_\_

FOR OFFICIAL USE ONLY

E 5624 S 2833 N 44957  
B 501 O 1978 A 2  
C 0 X \_\_\_\_\_  
V 2 D & B 001317064

00555601 3,582 125 2833  
MERCK & CO INC  
8 R E HARRINGTON INC  
PO BOX 1160  
COLUMBUS OHIO

07065

RAHWAY NJ

020689

ES.

PERTH  
AMBOY  
QUAD

13. List all of the selected substances included in this report along with their CAS Numbers (From Table I of the Instructions) which are manufactured, processed, formed, repackaged, released, used, disposed of or stored at the plant site:

Chloroform 67-66-3

Propylene Oxide 75-56-9

Methylene Chloride 75-09-2

2-Chlorophenol 95-57-8

1,1,2,2 Tetrachloroethane 79-34-5

Phosgene 75-44-5

1,4 Dichlorobenzene 106-46-7

Formaldehyde 50-00-0

Aniline 62-53-3

Benzene 71-43-2

Toluene 108-88-3

Zinc Powder 7440-66-6

Zinc Chloride 7440-66-6

## Wastewater Discharges - Complete the following information:

See Attachment

## A. Discharge to publicly owned treatment works (POTW):

1. Name of Utility (POTW) Rahway Valley

Address/Location Rahway, New Jersey

2. Estimated Average Volume of Wastewater Discharged to POTW in a day  
1,000,000

gallons.

3. Briefly describe any pretreatment methods None

4. Wastewater consists of: (X) Process Water, ( ) Contact Cooling, (X) Non-Contact Cooling, (X) Domestic Sewage, (X) Contaminated Storm Water, (X) Washdown Water, (X) Scrubber Water, ( ) Other;

## B. Discharge to Navigable Waterway or Tributary Stream:

1. Name of Receiving Stream Kings Creek

2. NPDES Permit Number NJ0002348

3. Estimated average volume of wastewater discharged to receiving stream in a day  
55,000

gallons.

4. Briefly describe any treatment methods None

5. Wastewater consists of: ( ) Process Water, ( ) Contact Cooling, (X) Non-Contact Cooling, ( ) Domestic Sewage, (X) Contaminated Storm Water, ( ) Washdown Water, ( ) Scrubber Water, ( ) Other;

previous disposal practices (1930-1977). Has this plant previously disposed of wastes containing any of the selected substances at any land disposal site (i.e. by land spreading or burial, landfilling, lagoon or seepage pit) either on site?

YES ☒ NO ☐ 01

Available provide the following information for each disposal site. Use additional

Name and Location of Site On site

Period site was used Before 1971

List of selected substances  
disposed of at this sitePhysical  
State

Asbestos

Solid

Zinc

Solid

40009

1. 0024643

2. 1.000000

3. 99

1. 24992

2. 0002348

3. 000.0550

4. 99

SECTION C  
WASTE CHARACTERISTICS

This section describes the chemical and physical nature of the hazardous waste (HW) stored at the Rahway site of Merck & Co., Inc., and the Waste Analysis Plan for evaluating the wastes to assure that sufficient information is available for their safe handling. The information submitted is in accordance with the requirements of 40 CFR 122.25 (a) and 40 CFR 264.13.

C-1    CHEMICAL AND PHYSICAL ANALYSES [40 CFR 122.25(a) (2)]

Hazardous wastes are stored at the site in a variety of containers and a number of storage tanks. Hazardous wastes are also treated at the facility in two neutralization wastewater pretreatment tanks.

The wastes are generated from manufacturing, laboratory, and from pilot plant activities located throughout the site. Manufacturing is carried out in both dedicated (single product) and multipurpose facilities. Multipurpose facilities are designed to accommodate many processes. Depending upon such factors as regulatory and patent status, and the needs of the medical profession, pharmaceutical products may be added to or deleted from the production schedule or shifted from one process unit to another during designated periods of the year. It is clear that solvent waste emanating from multipurpose manufacturing facilities will vary. Combined solvent waste streams from multipurpose facilities will reflect the characteristics of this manufacturing activity in respect to quantity and composition.

Research activities embracing virtually all branches of medical science coupled with extensive quality control functions comprise the bulk of laboratory activities at the site. Small and large scale pilot plant activities also take place. By nature these operations will change on a daily basis, hence the waste streams will vary in respect to kind and quantity also on a daily basis.

The types of hazardous waste, the estimated annual quantity that may be generated, along with the type of storage and treatment process used is summarized in Section A. Because of the variability of the waste produced on site, Merck has, by necessity, chosen to classify and manage the waste by category. Waste handled in each HWM process are as follows:

C-1a     CONTAINERS

There are seven types of hazardous wastes stored in containers at the Rahway Plant: chlorinated spent solvents, non-chlorinated spent solvents, mixtures of chlorinated and non-chlorinated solvents, still bottoms from the recovery of various solvents, reactive wastes, discarded commercial chemicals and waste corrosives. The specific waste that can be stored in containers are listed in Table C-1. This list includes not only wastes that are currently handled, but also wastes that may be generated in the future as a result the extensive research/development activities.

Chlorinated spent solvents are generated from pilot plant, laboratory and production activities. Though the primary type of container used for storing these wastes is the 55-gallon drum, small glass bottles subsequently placed into fibre overpack drums are also used. Since flash points of the wastes may be less than 140°F, all chlorinated solvents are managed as ignitable waste, in compliance with all storage and operational requirements for ignitable hazardous wastes. The wastes are assigned the EPA HW Codes D-001 or F-002 as appropriate.

Non-chlorinated spent solvents are also generated in pilot plant, laboratory and production activities. Again the primary type of container used for storage is the fifty-five gallon drum. Smaller containers are stored in fiber overpack drums. Since the flash points of these wastes are less than 140°F, the non-chlorinated solvents are handled in a manner that fully complies with the requirements for managing ignitable wastes. These wastes are assigned the EPA HW Codes F003, F005 and D001 as required.

Still bottoms containing solvents capable of imparting a flash point of 140°F or less are generated from the recovery of various solvents as well as from experiments in the laboratory area. In general these wastes are listed Subpart D wastes having EPA HW code's F-002, F-003 and F-005, although in some cases they are classified D-001. Fifty-five gallon drums are the primary form of containment for these wastes which are managed in accord with the storage and operational requirements for ignitable hazardous wastes.

Reactive wastes may be generated from pilot plant, laboratory and production activities and are stored in fifty-five gallon drums as well as smaller containers which are segregated and kept in overpacks. These wastes are handled in a manner that will protect them from conditions that could cause the wastes to react and are assigned the EPA HW Code D-003.

Discarded commercial chemicals can be generated in all three areas. Small quantities of materials from laboratory activities are stored in small ampules or glass bottles and are placed in overpack drums. Large quantities of discarded commercial chemicals are stored in fifty-five gallon drums. These wastes are assigned specific EPA HW Codes as per 40 CFR261.33 and are stored in a manner that fulfills all the requirements in accord with the characteristics with the waste.

Waste-corrosives (D002) are also generated throughout the site. These wastes are corrosive because they are either aqueous having a pH less than or equal to 2 or greater than or equal to 12.5, or are liquids which corrode steel at a rate greater than 0.250 inch per year at 55°C. Wastes not treated as discussed in C-1c are placed in individual containers, overpacked in fifteen gallon drums and kept segregated from other wastes.

Laboratory, pilot plant, and production activities also result in the generation of mixtures of chlorinated and non-chlorinated solvents that are stored in fifty-five gallon drums. Because of their ignitable characteristic (flash point less than 140°F) these mixtures are handled in a manner that fully complies with all requirements for ignitable hazardous wastes. These wastes are assigned EPA HW Codes D001, F002, F003 and F005 as appropriate.

#### C-1b TANKS

There are four types of hazardous waste stored in tanks at the Rahway site: non-chlorinated spent solvents, chlorinated spent solvents, mixtures of the chlorinated and non-chlorinated, and corrosive wastes. Wastes stored in tanks originate directly from a manufacturing process or from containers. Table C-2 lists the major solvents in the waste solvent holding tanks along with the respective flash points specific gravities. Since the wastes will frequently have flash points less than 140°F, all wastes are assigned the EPA HW Code D-001. In addition to D-001, other HW Codes are assigned based on composition.

Non-chlorinated wastes, chlorinated wastes and mixtures of both can be stored in any of the registered hazardous waste tanks at the site. All tanks are designed and operated to comply with the requirements for ignitable wastes.

Corrosive wastes (process waste waters) are handled in tanks TA-100A, TA-110, and TA-120 prior to being neutralized and sent off-site to a POTW. The wastes are aqueous and can have a pH of 2 or less or equal to or greater than 12.5. The wastes are consequently assigned the EPA HW Code D-002, but can also contain low levels of other hazardous wastes as indicated in Section A.

D84-T-D-1-1 through T-D-1-10 (Final)

TABLE C-1. Hazardous Wastes for Drum Storage  
Merck & Company, Inc., - Rahway, N.J.

EPA Waste No.	Description
F001	The spent halogenated solvents used in degreasing tetrachloroethylene, trichloroethylene, methylene chloride, 1, 1, 1-trichloroethane, carbon tetrachloride, and the chlorinated fluorocarbons, and sludges from the recovery of these solvents in degreasing operations.
F002	The spent halogenated solvents, tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, o-dichlorobenzene, trichlorofluoromethane, and the still bottoms from the recovery of these solvents.
F003	The spent non-halogenated solvents, xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol, and the still bottoms from the recovery of these solvents.
F004	The spent non-halogenated solvents, cresols and cresylic acid, nitrobenzene, and the still bottoms from the recovery of these solvents.
F005	The spent non-halogenated solvents, toluene, methyl ethyl ketone, isobutyl ketone, carbon disulfide, isobutanol, pyridine, and the still bottoms from the recovery of these solvents.
F001	3-(a-acetonylbenzyl)-4-hydroxycoumarin and salts.
F002	N-(aminothioxamethyl)-acetamide
F003	Acrolein
F005	Aldrin
F005	Allyl alcohol
F006	Aluminum phosphide
F007	5-(aminomethyl)-3-isoxazolol
F008	4-Aminopyridine
F009	Ammonium picrate
F010	Arsenic acid
F011	Arsenic pentoxide
F012	Arsenic trioxide

For entire list of Hazardous Wastes for drum storage, refer to the RCRA 3001 Permit Application - Part B. This is obtainable by contacting Jim Bell, Haz. Waste Engineering: (609) 292-9159.

Table D-1. Dimensions and Maximum Capacities in Container  
Storage Areas (Excludes Areas to be Closed)  
Rahway, NJ

Area No.	Dimensions (ft)	Maximum Storage Capacity
1 <sup>a, b</sup>	25 x 25	80 drums
2 <sup>b</sup>	74 x 85	856 drums
3 <sup>d</sup>	100 x 100	1408 drums
4 <sup>a</sup>	10 x 15	12 overpack drums
5 <sup>a</sup>	10 x 10	8 overpack drums
6 <sup>a</sup>	15 x 75	72 overpack drums
7 <sup>a</sup>	20 x 58	160 drums
8 <sup>a</sup>	10 x 100	96 overpack drums
9 <sup>a</sup>	15 x 100	448 overpack drums
10 <sup>a</sup>	40 x 175	128 overpack drums
11 <sup>a</sup>	44 x 11	84 drums
12 <sup>a</sup>	Irregular 8 x 120 total	114 overpack drums
13	16 x 104	284 drums
14	13 x 60	132 drums
16	25 x 44	140 drums
18	21 x 44	116 drums
19	51 x 107	768 drums

<sup>a</sup>Areas presently in compliance with RCRA Part B requirements

<sup>b</sup>Areas holding predominantly solid wastes

<sup>d</sup>Area to be resurfaced

Table D-3. Tank Capacities and Dimensions  
Merck & Co., Inc., Rahway, NJ

Tank No.	Type	Capacity (gal)	Dimensions	
			Overall Length (ft - in)	Diameter* (ft - in)
101	H,B	10,600	28 - 10	8 - 0
102	H,B	10,600	28 - 10	8 - 0
103	H,B	10,600	28 - 10	8 - 0
104	H,B	10,600	28 - 10	8 - 0
105**	V,A	4,800	7 - 6**	10 - 3/4
100A	V,A	300,000	23 - 10	50 ID
110	V,A	300,000	23 - 10	50 ID
120	V,A	300,000	23 - 10	50 ID
130	V,A	13,000	12 - 0	15 - 0
135	V,A	13,000	12 - 0	15 - 0
10ML	H,A	10,000	25 - 6	8 - 0
801	H,B	5,000	13 - 3	8 - 0
803	H,B	5,000	13 - 3	8 - 0
805	H,B	10,000	26 - 6	8 - 0
808	H,B	10,000	26 - 6	8 - 0
831	H,A	5,000		8 - 0
859	H,A	5,000	17 - 0	8 - 0
860	H,A	5,000	17 - 0	8 - 0
708	H,A	1,000	8 - 0	5 - 4
1190	H,A	1,000	8 - 0	5 - 4
1191	H,A	1,000	8 - 0	5 - 4
2101	V,A	2,000	9 - 0	7 ID
2103	V,A	2,000	9 - 0	7 ID
2301	H,A	5,000	14 - 0	8 - 6
2303	H,A	5,000	14 - 0	8 - 6
5774A	V,A	3,358	9 - 6	7 - 2
Old fuel tank	H,A	5,000		

H = Horizontal  
V = Vertical  
B = Buried (gravel covered in diking)  
A = Above ground  
ID = Inside diameter

\*Diameters given as outside tank diameters excluding tank jackets unless otherwise noted.

\*\*Tank 105 has a 120° cone shaped hopper on its bottom, dimension for overall length represents straight side dimension.

Table D-1. Waste Solvents Generated at Merck & Co., Inc.  
Rahway, NJ

Solvents	Specific Gravity <sup>a</sup>
<u>Nonchlorinated</u>	
Acetone	$d_{25}^{25} = 0.788$
Alcohol 2BA, Type 2	
Methanol	$d_4^{15} = 0.796$
Benzene	$d_4^{15} = 0.879$
Toluene	$d_4^{20} = 0.866$
Carbon disulfide	$d_4^{20} = 1.263$
Isopropyl alcohol	$d_4^{20} = 0.785$
Isopropyl acetate	$d_4^{20} = 0.870$
Acetonitrile	$d_4^{15} = 0.737$
t-Butyl alcohol	$d_4^{20} = 0.739$
n-Butanol	$d_4^{20} = 0.810$
Hexane	$d_4^{20} = 0.660$
Xylene	$d = 0.86$
Ether	$d_4^{15} = 0.719$
Tetrahydrofuran	$d_4^{20} = 0.889$
Methyl ethyl ketone	$d_4^{20} = 0.805$
t-Butylamine	$d_4^{20} = 0.695$
Heptane	$d_4^{20} = 0.684$
Benzaldehyde	$d_4^{15} = 1.050$
<u>Chlorinated</u>	
Methylene chloride	$d_4^{15} = 1.335$
Monochloroacetone	$d_4^{15} = 1.135$
Chloroform	$d_{20}^{20} = 1.484$
Monochlorobenzene	$d_4^{20} = 1.107$
Tetrachloroethane	$d_4^{25} = 1.537$
Ortho-dichlorobenzene	$d_4^{20} = 1.306$

<sup>a</sup>Specific gravities are given in relation to water, e.g.,  $d_4^{20}$  denotes the relative densities of the solvent at 20°C and water at 4°C.

084-7-2-2 (FINAL)

# General Information

## REPORT

### Discussion

Merck and Company Inc., Rahway, New Jersey is engaged in the manufacture of various pharmaceuticals and human and animal health care products. The principal products include Vitamin C and thiabendazole. The facility, which has been in operation since the 1900's, employs approximately 3600 people working seven days per week, 24 hours per day. During the 24-hour sampling survey period, production was estimated to be 75 percent of rated plant capacity.

All process and sanitary waste waters are discharged to separate collection systems for pretreatment prior to discharge into the Linden-Roselle Sewage Authority and Rahway Valley Sewage Authority facilities. Other waste waters, which include cooling tower blowdown, noncontact cooling water and plant runoff, are discharged without any treatment via Outfalls 003, 004, and 005.

During the sampling survey, 24-hour composite samples were collected at Outfalls 003 and 004. At Outfall 005, equipment malfunctions prevented the sampling team from collecting a 24-hour composite. However, samples were collected for a period of 22.5 hours, which is considered to be a representative sample. During the sampling survey, waste waters discharged via Outfalls 003, 004, and 005 were in compliance with existing effluent limitations for BOD<sub>5</sub>, TSS, chromium, zinc, temperature, flow and pH with one minor exception. For approximately 20 minutes during the survey period, the effluent pH at Outfall 005 was measured to be 5.0 S.U. Comparisons of effluent characteristics to permit conditions are contained in Tables I, II, and III.



State of New Jersey  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
DIVISION OF WASTE MANAGEMENT  
32 E. Hanover St., CN 027, Trenton, N.J. 08625

JACK STANTON  
DIRECTOR

LINO F. PEREIRA  
DEPUTY DIRECTOR

07 JUL 1983

Ex. 6

RE: Merck and Company, Inc., Rahway  
EPA ID NO. NJD001317064

Dear Ex. 6:

The redacted information consists of names and/or addresses of private individuals. Disclosure of this information would be invasive of personal privacy and thus is exempt from mandatory disclosure by virtue of Exemption 6 of the FOIA, 5 U.S.C. 552(b)(6).

Thank you for your recent letter commenting on the hazardous waste activities at the above referenced facility.

The above subject company stored hazardous waste in containers and tanks and operated an incinerator for hazardous and non-hazardous wastes prior to the adoption of the federal hazardous waste regulations. The federal hazardous waste regulations were adopted on May 19, 1980 as part of the Resource Conservation and Recovery Act (RCRA).

The company was granted interim status as a treatment, storage, and disposal facility as a result of submitting a part A application on November 19, 1980. On August 24, 1982, the United States Environmental Protection Agency (USEPA) requested a Part B permit application from the company, which had to be submitted within six months.

The company submitted a Part B application on February 22, 1983, requesting a permit for only storage, in containers and tanks. Along with the permit application, the company advised it had terminated incineration of hazardous wastes and intended to terminate nine of its hazardous waste drum storage areas and nine of its hazardous waste storage tanks, and requested formal approval of closure plans for these activities.

As part of the Department's review of these closure plans, a public notice was published in the Daily Journal on May 30, 1983 describing the activities to be closed. Public comments on the closure plan will be reviewed before a decision will be made on the adequacy of the closure plans. When closure plans are approved, these storage areas will no longer be used for the handling of hazardous wastes. The use of the incinerator for hazardous waste disposal has already been terminated. but the unit continues to be used for the disposal of non-hazardous wastes, as is permitted by the Department's Bureau of Air Pollution Control.

General Information  
New Jersey Is An Equal Opportunity Employer

3  
A-1

MISCELLANEOUS ITEMS FOR 1982

- 1) There were no incidents during calender year 1982 which required the implementation of the Contingency Plan.
- 2) Closure cost estimate for 1982 (April 1982) = \$983,000.
- 3) Total quantities of each waste type placed in storage and removed from site is as follows:

<u>EPA Waste Code</u>	<u>Total</u>
✓ F002	64,350 lb. & 19,128 Gal.
X850	2,210 lb.
X910	20,400 lb.
1 D001	21,387 lb. & 5,615 Gal.
0 D002	4,476 lb. & 500 yd <sup>3</sup> & 150 Gal.
X940	15 Gal. & 11,000 lb.
✓ D003	200 yd <sup>3</sup> & 450 lb.
F005	2,140 lb. & 36,280 Gal.
D006/D008	950 lb.
100 D008	30 Gal.
P115	10 yd <sup>3</sup>
100 D006	50 lb.
F005/F003	23,000 Gal.
F005/D001	33,300 Gal.
✓ F002/F003	4,500 Gal.
F002/F003/D001	4,500 Gal.
F002/F003/F005/D001	33,000 Gal.
F003/F005/D001	40,480 Gal.
D001/F002/F005	2,180 Gal.
✓ F001/F002	7,702 Gal.
D002 (Sewerage - Waste Treatment)	1,990,000 Tons

UNITED STATES  
ENVIRONMENTAL PROTECTION AGENCY  
REGION II  
26 Federal Plaza  
New York, New York 10007

OCT 25 1977

Division Water Resources

----- X  
In the Matter of :  
: Merck & Company, Inc. :  
: NPDES Permit Number: NJ 0002348 :  
: Proceedings under Section 309(a)(3) :  
: and (a)(4), Federal Water Pollution :  
: Control Act Amendments of 1972 :  
: (33 U.S.C. §1319) :  
----- X

FINDINGS OF VIOLATION  
AND  
ORDER TO SHOW CAUSE

EPA Number NPDES - II-77-102

The following FINDINGS are made and ORDER issued pursuant to the authority vested in the Administrator of the Environmental Protection Agency (hereinafter EPA) by Section 309 of the Federal Water Pollution Control Act Amendments of 1972 (33 U.S.C. §1319)(hereinafter "the Act") and by him duly delegated to the Regional Administrator of Region II which authority has been duly re-delegated to the (undersigned) Director, Enforcement Division, Region II.

FINDINGS:

1. On September 23, 1975, the Regional Administrator of Region II, EPA, pursuant to authority delegated to him by the Administrator, issued a National Pollutant Discharge Elimination System (NPDES) permit under Section 402 of the Act, (33 U.S.C. §1342) to Merck & Company, Inc. (hereinafter Merck), for the discharge of pollutants from its facility located at Rahway, New Jersey to Kings Creek and the Rahway municipal storm sewer. By its terms, this permit (Number NJ 0002348) became effective on October 31, 1975.

2.(a) By letter of September 6, 1974, Merck amended its application for the above-referenced permit by reporting the elimination of Discharges 001 and 002. These discharges were asserted to be inoperative except at times of heavy rainfall or operation of the deluge system in an emergency caused by fire. The permit was issued effective October 31, 1975 permitting discharges solely from Discharges 003, 004 and 005.

(b) During an inspection conducted by personnel of the New Jersey Department of Environmental Protection at the referenced facility on February 2, 1977 when the weather was fair, dry and cold, contaminated discharges were observed and sampled from two unpermitted outfalls: (1) a twenty-four inch pipe believed to be the allegedly discontinued outfall 001; (2) an eighteen inch pipe that was not made reference to in the permit application. The discharge from the former outfall was characterized by a concentration of 1138 mg/l

Total Suspended Solids, 890 mg/l COD, 141 mg/l BOD<sub>5</sub> and a visible oil sheen. The discharge from the latter outfall was characterized by a concentration of 884 mg/l Total Suspended Solids, 271 mg/l COD and a pH of 2.0 standard units. Merck was advised of the operation of these two unpermitted discharges during the inspection of February 2, 1977.

(c) On October 13, 1977, personnel from the New Jersey Department of Environmental Protection again visited the Merck facility and observed that contaminated discharges continued to flow from the two above-referenced outfalls.

(d) It is, therefore, found that Merck has been, and continues to be, in violation of Section 301 of the Act (33 U.S.C. §1311) in that it continues to discharge from two outfalls which are not permitted by the referenced permit.

3.(a) Operations at the referenced facility have been characterized by numerous serious spill events, to wit:

(i) May 12, 1975 - spill of ammonia and Thiobendazole (TBZ);

(ii) June 22-23, 1976 - spill of cobalt catalyst observed during inspection by EPA, Surveillance and Analysis Division;

(iii) July 9, 1976 - spill of cobalt catalyst;

(iv) October 8, 1976 - sewer line blockage resulted in backup of raw waste load to former outfall 001;

(v) October 19, 1976 - spill of 3,000 gallons of Sodium Thiocyanate through outfall 003;

(vi) November 23, 1976 - break in ammonia line resulting in discharge of ammonia and ortho-dichlorobenzene observed during inspection by New Jersey Department of Environmental Protection;

(vii) January 31, 1977 - spill of ortho-dichlorobenzene and hydraulic fluid; and

(viii) February 8, 1977 - PCB emergency due to transformer overload.

4.(a) By the terms of Condition 1.A.2.a. on Page 3.a. of its permit, Merck was required to limit the discharge of Total Suspended Solids from outfall 003 to 9 kg/day as a daily average and 18 kg/day as a daily maximum.

(b) In its Discharge Monitoring Report submitted on August 24, 1977, Merck reported a discharge of 22 kg/day as a daily average and 68 kg/day as a daily maximum and attributed this violation to construction activity.

(c) It is, therefore, found that Merck has violated Condition 1.A.2.a. of its permit and Section 301 of the Act (33 U.S.C. §1311) in that it discharged Total Suspended Solids from outfall 003 in excess of that permitted by the terms of said Condition.

ORDER TO SHOW CAUSE

1. Upon a thorough investigation of all relevant facts, including the seriousness of the violations involved, it is hereby ORDERED pursuant to Section 309 of the Act that the permittee shall at 10:30 A.M. on November 17, 1977, appear at the United States Environmental Protection Agency, Region II Offices, Room 437 P, 26 Federal Plaza, New York, New York 10007 to show cause before Meyer Scolnick, Director, Enforcement Division, or his designee, why EPA should not promptly refer Merck to the United States Department of Justice for the commencement of an action for the imposition of the civil and criminal penalties provided for by §§1319(b), (c) and (d) of the Act (33 U.S.C. §§1319(b), (c) and (d)).

2. Merck shall submit in writing, at least seven (7) days before its scheduled appearance, a report detailing: (a) the actions which have been taken, or which will be taken (including times for compliance) to eliminate the referenced unpermitted discharges; (b) the steps which have been taken and/or which will be taken to prevent the reoccurrence of the numerous spill events detailed above; (c) whether the construction activity (cited as the cause of the Total Suspended Solids violation at outfall 003) has been completed; and (d) the results of the most recent monitoring for Discharges 003, 004 and 005.

Should the permittee have any questions concerning compliance with this ORDER, it should contact George Shanahan, Attorney, Water Enforcement Branch, at the above address or at (212) 264-4347.

Date:

October 20, 1977

Signed:

Stephen Dvorkin  
Stephen Dvorkin  
Acting Director  
Enforcement Division  
Region II



SP20/13

## INCIDENT REPORT

D.W.M. ASSIGNED CASE NUMBER	813-106-102-1091C	HOT LINE	<input checked="" type="checkbox"/>	INDEXED	<input checked="" type="checkbox"/>
DATE	106-102-1813	TIME (Military)	117130	D.W.M. ID NO.	112107

## INCIDENT REPORTED BY:

NAME	Tom Puchalski thru Trenton Dispatch	PHONE	201-574-5361
AFFILIATION	Merck	CODE	
STREET			
CITY	Rahway	STATE	
		ZIP CODE	

## INCIDENT LOCATION:

NAME	Same as IR	PHONE	
STREET		UTM VERT	
CITY		UTM HORIZ	
		STATE	
	COUNTY	ZIP CODE	

## SOURCE OF SPILLED AND/OR DISCHARGED SUBSTANCE:

Confirmed ☐Alleged ☐More Than 1 Source ☐

COMPANY NAME	Same as IR	PHONE	
CONTACT		TITLE	
STREET		DEP COMPANY NO.	
CITY		STATE	
	COUNTY	ZIP CODE	

## SUSPECTED SPILLED AND/OR DISCHARGED SUBSTANCE:

Confirmed ☐Alleged ☐More Than 2 Substances ☐

1. 33% Methanol/water mixture	SUBSTANCE NO.	
AMOUNT SPILLED	UNITS	A/P/E
150	6165	
2.	SUBSTANCE NO.	
AMOUNT SPILLED	UNITS	A/P/E

DATE OF INCIDENT	TIME (Military)	TEMP.	WEATHER	WIND (Dir. & Vel.)
106-102-1813	1171070			
SPILL ORIGIN	CAUSE	CODE		
overflow tank overflow - Tank farm, Building # 73	7.600 vent pipes			
WATER BODY AFFECTED		CODE		
None				
ASSOCIATED FIRE AND/OR HAZARDS				
None				

## INCIDENT REFERRED TO:

AGENCY	PHONE
CONTACT	AGENCY CODE

PRIMARY D.W.M. INVESTIGATOR	FOLLOWUP
NO FURTHER ACTION	DATE

## COMMENTS:

Tank overflowed on the ground and was washed down with water.  
140 - Called company at above number and got no answer.  
145 - Called company again at 201-574-4000 and spoke with guard who could not hear for call but did verify number.  
147 - Tried above number again - no answer.  
148 - Called 574-4000 (had guard get number) and Trenton Disp.



D.W.M. ASSIGNED CASE NUMBER <u>83-06-02-09C</u>		Page <u>1</u> of <u>2</u>
DATE <u>6-9-83</u>	TIME <u>1835</u>	D.W.M. ID NO. <u>207</u>

1835 - Trent. Dumpster called back with Puchalski's home phone number.

1838 - Called Puchalski - who stated that liquid discharge from vent pipe of nylon tank and on the ground, in containment. Some liquid was washed down into on-site chemical collection sump and some at ambient ground. Soil will not be removed because Puchalski does not feel that it will be ignitable. There will not be a hazardous waste. A confirmation letter will be forthcoming.

Liquid from chemical sump goes into 300,000 gallon equalization tank before discharge to Linden Park Sewage Authority.

## INCIDENT REPORT

D.W.M. ASSIGNED CASE NUMBER	82-111-013-002	HOT LINE	<input type="checkbox"/>	INDEXED	<input type="checkbox"/>
DATE	11-03-82	TIME (Military)	110215	D.W.M. ID NO.	11111

## INCIDENT REPORTED BY:

NAME	Ron Andruchowicz	PHONE	201 574 5026
AFFILIATION	Site Envt. Engineer - Merck & Co	CODE	14
STREET	Lincoln Ave	Box 2000	126 East Lincoln
CITY	Rahway	STATE	NJ
ZIP CODE			

## INCIDENT LOCATION:

NAME	MANUFACTURING AREA AT ABOVE ADDRESS	PHONE	
STREET		UTM VERT	
CITY		STATE	
COUNTY	20	ZIP CODE	

## SOURCE OF SPILLED AND/OR DISCHARGED SUBSTANCE:

Confirmed ☐Alleged ☐More Than 1 Source ☐

COMPANY NAME	Above	PHONE	
CONTACT		TITLE	
STREET		DEP COMPANY NO.	
CITY		STATE	
COUNTY		ZIP CODE	

## SUSPECTED SPILLED AND/OR DISCHARGED SUBSTANCE:

Confirmed ☐Alleged ☐More Than 2 Substances ☐

1. Ammonia - NH <sub>3</sub>	SUBSTANCE NO.	
AMOUNT SPILLED	UNITS	A/P/E
APPROX. 10	GALS	E
2.	SUBSTANCE NO.	
AMOUNT SPILLED	UNITS	A/P/E

DATE OF INCIDENT	11-03-82	TIME (Military)	0945	TEMP.		WEATHER		WIND (Dir. & Vel.)	
SPILL ORIGIN	Rail Car	CODE							
CAUSE	Valve Packing Leaking	CODE							
WATER BODY AFFECTED	None	CODE							
ASSOCIATED FIRE AND/OR HAZARDS									

## INCIDENT REFERRED TO:

AGENCY	PHONE
CONTACT	AGENCY CODE

PRIMARY D.W.M. INVESTIGATOR	FOLLOWUP
NO FURTHER ACTION	DATE

## COMMENTS:

Ammonia is leaking from rail car valve  
Total volume of car 30,000 gals. or 166,000 lbs.  
At this time leak has been stopped temporarily.  
GATX personnel are being notified of leak and  
will respond ASAP. Company has notified Rich Hills  
Central Office Air Pollution. Fire Dept. Hosed Car Down  
while repair work was being performed. Mr. Rich Kozup

D.W.M. ASSIGNED CASE NUMBER <u>82-11-03-002</u>		Page <u>2</u> of <u>2</u>
DATE <u>11-3-82</u>	TIME <u>      </u>	D.W.M. ID NO. <u>      </u>

of the Bureau of Air Pollution Central Region responded. The leak has been stopped and the tank is being drained. The work should be conducted by 1500 hrs today (11/3/82).

Lab  
E/11/104



# MERCK CHEMICAL MANUFACTURING DIVISION

MERCK & CO., INC. • RAHWAY, NEW JERSEY 07065

October 11, 1976

Mr. Richard Bellis  
Assistant Director  
Pollution Control Monitoring,  
Surveillance & Enforcement  
Dept. of Environmental Protection  
P.O. Box 1390  
Trenton, New Jersey 08625

Dear Mr. Bellis:

At 4 P.M. Friday, October 8, 1976 a plugged chemical sewer line caused a backup of the waste stream to overflow at a weir at former outfall 001 to Kings Creek. The 18 inch line is the main trunk line to the pretreatment area prior to discharge to the Linden-Roselle Sewerage Authority plant.

The sequence of events to correct the problem are tabulated below:

<u>Time</u>	<u>Hours</u>	<u>Volume over Weir</u>	<u>Comments</u>
4-5 P.M.	1 hr.	55,000 gallons	Backup occurred. Clear waste creek clean. All operations warned of crisis.
5-7:20 P.M.	2-1/3 hr.	58,000 gallons	*Emergency pump set up to by-pass plugged manhole.
7:20 P.M.	-	-	Pluggage cleared by outside contractor.

\* Pump capacity - 30,000 gallons per hour

The entire course of events was telephoned to Mrs. Blackwell at the Raritan Interstate Basin, Water Pollution Control. The initial problem was also relayed to Mr. Edward Faille, Water Pollution Control, and Mr. Paul Elliott's office, EPA, Edison, New Jersey. At 7:30 P.M., when normal flow resumed, the EPA hot line was notified.

Mrs. Blackwell and Mr. E. H. Post, Raritan Interstate Basin, visited the plant on Saturday, October 9, 1976 to review and photograph the equipment, weir, and glue like mass that caused the problem.



# Railway Tap Wells.

## Wells

Det.

1639	park st	
537	Union st	
561	Rivers rd	
537	Bramhill rd	
98	E. Emerson ave	
661	Thimlock st	
1367	Jefferson st	
551	Rivers rd	
705	W. Lincoln ave	223-31-41
2254	Lullow st	
272	W. Milton ave	
815	Gratt St	
464	St. Georges ave - (Gen. Ell. Clonara)	
475	E. Scott ave	71-6-79
150	W. Hazelwood ave	
241	W. Milton ave	
<del>158</del>	E. Grand ave	
2255	Lullow st	225 39-41
1045	Milton blnd	411-40-6
1168	Montgomery st	88-15-68
640	Central ave	439-33-6
108	Rudolph ave	
627	Seminary ave	
498	Union st	
872	Bryant st	
512	W. Grand ave	
647	W. Hazelwood ave	474-5-7
681	W. Hazelwood ave	
1510	Campbell st	
405	E. Grand ave	94-39-6
680-82	W. Grand ave	

Wells cont,

Feet

#894 Hamilton St,	894 46.9
1837 Winfield st,	351 - 35
1944 Bond st,	
537 Brimhall rd	
801 Kelly pl.	

INDUSTRIAL WELLS

Associated Plastics	205 E. Inman Avenue
MBM Corporation	232. Wescott Drive
Rahway Hospital	865 Stone Street
Margon Corporation	2194 Elizabeth Avenue

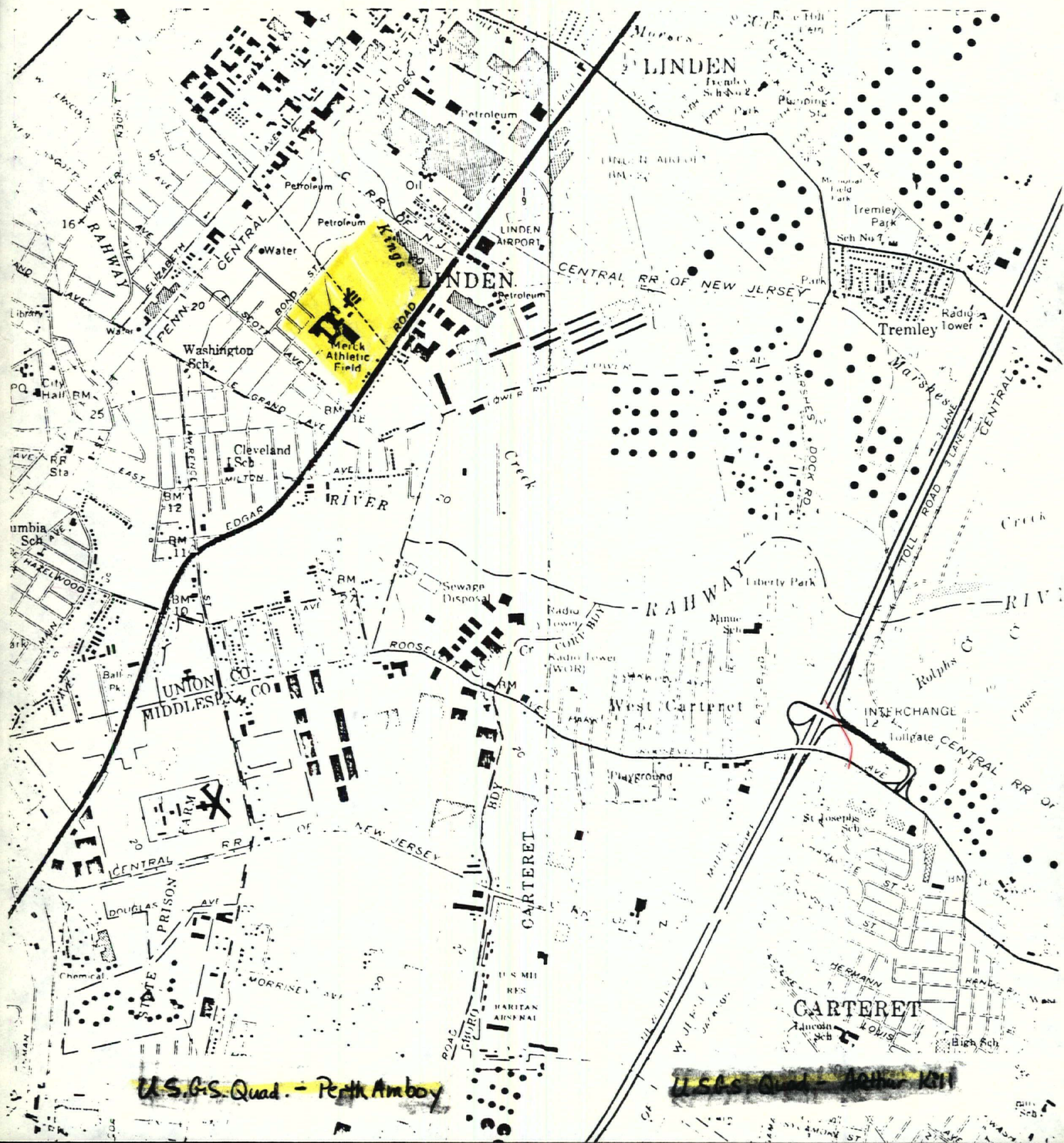
Total population within 3 mi<sup>2</sup> of  
Merck & Co. includes entire population of  
Rahway 26,723

This information was provided by Inspector Buchanan of  
The Rahway Health Department.

Merck and Company

Latitude :  $40^{\circ}36'12''$

Longitude :  $74^{\circ}15'24''$



83-06-0004  
5 P 32-13

4  
3



# MERCK CHEMICAL MANUFACTURING DIVISION

MERCK & CO., INC. • P.O. BOX 2000 • RAHWAY, NEW JERSEY 07065 • (201) 574-4000

June 21, 1983

Mr. Tim Downy  
Department of Environmental Protection  
Division of Waste Management  
120 Route 156  
Yardville, New Jersey 08620

Dear Mr. Downey,

I would like to confirm our phone conversation of June 9, 1983 regarding a methanol solution spill at our Rahway site. Approximately 150 gallons of a 33% methanol/water stream - classified as hazardous because it exhibits the characteristic of ignitability - discharged from the vent of an overflow tank serving two dilute methanol storage tanks. The material fell to the surrounding soil and a nearby roadway (internal to the site). The Merck Fire Department responded immediately and thoroughly washed the entire area. The spilled material was washed to the chemical sewer system which discharges to the Linden Roselle Sewerage Authority. Because of the dilute nature of the washed material, and because the soil in the spill area would not meet the criteria for ignitability, the soil is not considered to be hazardous. Therefore, as we discussed on the phone, this soil will not be removed.

In order to prevent another occurrence of this nature, automatic block valves will be installed on the inlet line of the two storage tanks. These will be activated from existing level transmitters if the level is high and prevent the tank from overflowing. Should both valves be activated, this would result in the processing equipment being shutdown due to high levels.

Should you have any questions, please give me a call at (201) 574-5361.

Very truly yours,

*Tom Puchalski*

Tom Puchalski  
Manager  
Environmental Control

/ms

A3



# MERCK CHEMICAL MANUFACTURING DIVISION

MERCK & CO., INC.

RAHWAY, NEW JERSEY 07065

June 24, 1977

Ms Joan Munn, Sr. Environmental Technician  
Department of Environmental Protection  
Division of Water Resources  
P.O. Box 2809  
Trenton, New Jersey 08625

Attention: Discharge Confirmation

Dear Ms Munn:

On June 21, 1977 at 3:00 P.M. on a routine inspection tour of the site perimeter and Kings Creek outfalls, a dark, dense substance was observed at Outfall 003 creek bed. The impurity proved to be orthodichlorobenzene (ODCB).

The Merck emergency spill protection crew was activated and a salt-hay fence was erected directly below the dam with Coastal Pak adsorbent pillows and sorbant to contain the spill. Our contract discharge cleanup organization, Coastal Services, Inc., was called in to vacuum the estimated 10-15 gallons ODCB into the vacuum pump trucks. The creek bed was vacuumed three times and subsequently five manholes upstream of the outfall were cleaned. The entire operation was completed before sundown, with no evidence of any ODCB entering the creek proper.

After contacting Coastal Services your office (DEP) and Edison (EPA) were notified of the spill.

After a thorough investigation, it was concluded that the gutter on the main TBZ pad was the cause of the incident. Several cracks were found in the acid-brick base which could leak material to the deluge system overflow. Repairs are being made expeditiously.

On Saturday, June 25, 1977 after the creek bed has been thoroughly inspected, the hay and sorbant materials will be removed for incineration on the premises.

Again we regret the incident, and if you have any further questions please call Area Code (201) 574-5026.

Very truly yours,

B. W. Hartelius  
Manager Environmental Control

BWH:bwk

cc: Mr. M. Polito

Environmental Protection Agency Region II  
Edison, New Jersey 08817



# MERCK CHEMICAL MANUFACTURING DIVISION

MERCK & CO., INC. • RAHWAY, NEW JERSEY 07065

December 6, 1976

Mr. Richard Bellis  
Assistant Director  
Pollution Control Monitoring,  
Surveillance & Enforcement  
Dept. of Environmental Protection  
P.O. Box 1390  
Trenton, New Jersey 08625

RECEIVED  
EDISON, NJ

Dear Sir:

On Tuesday, November 23, 1976, at 4 P.M., Messrs. R. Harrison and E. Stevenson, Water Resources Division, Department of Environmental Control, visited the plant as a result of an ammonia odor emanating from Kings Creek. During the ensuing inspection tour, two other abnormalities were observed, i.e., a colored discharge from the barn area and an oil slick on the outfall stream. The probable cause and program to prevent recurrences are as follows:

- a. Ammonia odor - A break in the liquid ammonia line to the refrigeration building required a shutdown of the system and relief of ammonia pressure. The ammonia was absorbed in water, as part of the shutdown procedure, and in dumping the solution some was inadvertently drained to the surface water network. Repairs to the piping were made expeditiously. Appropriate emergency measures will be taken in the future to insure such effluent will be diverted to the chemical waste stream.
- b. Animal wastes - The greenish colored effluent the inspectors observed at outfall 003 was traced to animal wastes and barn washings. A plugged sewer line caused the lift stations to overflow while repairs were in progress. The tank effluent was temporarily pumped to a secondary sanitary sewer outlet until repairs were completed. It was found to be caused by animal feed pellets which packed the 4 inch sewer line. Obviously the repair crew must be trained to divert the effluent completely in such emergencies before investigating the source of the problem.

cc: Mr. William Librizzi, Jr.  
EPA Edison  
N.J. Surveillance & Analysis Division  
Edison, New Jersey 08817

Mr. Nicholas J. Casselano  
Environmental Engineer  
United States Environmental  
Protection Agency, Region II  
26 Federal Plaza  
New York, New York 10007

12/6/76

- c. Oil slick - While the source of the oil was probably parking lot surface drainings, an ortho dichlorobenzene (ODCB) odor was detectable in the creek bed. The ODCB was traced to a 3 gallon sump in a surface drain in the operations area above which a tank wagon had been cleaned after an ODCB pumping operation. The residue was ultimately washed into the creek by a wash-down operation. After the spill the drain was sealed. Being heavier than water the ODCB ultimately settled into the creek bed.

To contain the oil two "hay" fences were constructed across the creek and the outfall. Coastal Services, Inc. was called in to assist in the containment using booms and adsorbent. The hay and adsorbents will be disposed of by incineration. The ODCB, sand mixture will be physically removed and drummed for land disposal.

A permanent fence will be installed and an inventory of hay and adsorbent material will be made readily available. We are also investigating a contractual agreement with an oil spill and hazardous chemical firm to assist in the event of future spills. We have undertaken a program of color-coding surface drains and chemical drains to avoid the above and other recurrences. Lastly and foremost training is essential for all personnel in all areas to appreciate waste disposal and spill prevention procedures. We will have a refresher course for all personnel concerned to review the above incidents as well as to reaffirm these waste disposal and spill protection procedures.

We regret the incidents and if further clarification is necessary please feel free to call me at Area Code (201) - 574-5026.

Very truly yours,

*B. W. Hartelius*

B. W. Hartelius  
Manager Environmental Control

BWH:bwk

10/11/76

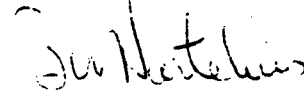
Samples of the waste stream are available for reference. An average analysis based on hundreds of samples is as follows:

BOD	2,000 mg./l.
SS	125 mg./l.

These data and data of other parameters are available for your perusal. BOD and SS are included in our Kings Creek NPDES permits.

We regret the incident and the resultant overflow and will review our operations to prevent a recurrence. If you have any further questions, please call, Area Code 201 - 574-5026.

Very truly yours,



B. W. Hartelius  
Environmental Control Manager

BWH:bwk

cc:

[REDACTED]  
EPA Edison  
N.J. Surveillance & Analysis Division  
Edison, New Jersey 08817

Mr. N. Caselano  
Environmental Engineer  
Water Facilities Branch  
Facilities Technology Division  
U.S. Environmental Protection Agency  
26 Federal Plaza  
New York, New York 10007

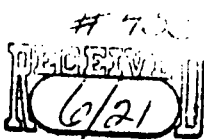
#224-77  
RECEIVED  
2/7

OIL AND  
HAZARDOUS SUBSTANCES  
TELEPHONE POLLUTION REPORT

Arthur Gend  
Person Receiving Report (Signature)

1. Person Reporting Incident:
  - a. Name: Mr Hartelius
  - b. Address: Merck & Co
  - c. Telephone: 574-5026
2. Date and Time of Report: 2:00 PM 2/7/76
3. Date and Time of Spill: 1:30 PM 2/7/76
4. Location of Incident: Railway
5. Water Body Affected: none
6. Quantity Reported Spilled: a few pints (gal)
7. Quantity Reaching Water: none  
no spill  
no spill  
no leak  
DP
8. Spill Material:
  - a. Chemical Name: PCB
  - b. Trade Name
  - Manufacturer:
    - a. Name: G.E
    - b. Address:
    - c. Telephone:
9. Cause of Spill: Transformer ruptured inside the plant
10. Source:
  - a. Name:
  - b. Address:
  - c. Telephone:
11. Others Notified or Currently Responding:

NIDEP  
material spilled on building & snow  
will dig up snow and wash siding with  
Trisodium phosphate and absorb on  
Speed, Dri. will contain and dispose of at Mod/GA



HAZARDOUS SUBSTANCE  
TELEPHONE POLLUTION REPORT

Clark Pine  
Person Receiving Report (Signature)

1. Person Reporting Incident:
  - a. Name Bert Hustelias Environmental Co. Telephone (201) 574-8026
  - b. Company Name and Address: March & Co. Rahway, N.J.
2. Date of Report: 6/21/77 4:10 P.M. 3. Time of Report: 6/21/77 3:10 P.M.
4. Location of Incident: Rahway, N.J.
5. Water Body affected: Kings Creek
6. Spill Material: Ortho dichlorobenzene
  - a. Chemical Name:
  - b. Trade Name:
7. Manufacturer:
  - a. Name:
  - b. Address:
  - c. Telephone:
8. Cause of Spill: Leak at this time - having problem
9. Estimated Quantity Spilled: 10-15 gallons
10. Source: (circle one)
  - a. Truck
  - b. Barge
  - c. Train
  - d. Other \_\_\_\_\_

Transport Company:

Address:

No spill  
No SPCC  
DP
11. Damages as a Result of Spill
  - a. People injured
  - b. Fire
  - c. Fish kill
  - d. Other \_\_\_\_\_
12. Others Notified or Currently Responding:

Out outfall 003 Kings Creek  
Hay/absorbent fence etc in creek Coastal Services  
enroute  
NJSDEP notified (Joan Munro)  
Follow up report will be sent  
cc. Mike Polito

U.S. ENVIRONMENTAL PROTECTION AGENCY  
OIL AND SPECIAL MATERIALS CONTROL DIVISION

**SPILL REPORT**

(Form 5)

**NOTE**

All non-shaded  
areas must contain  
an entry.

O. FOR CONTROL USE ONLY

0250651

1a. SPILL ID

453-77

(Not required. If unassigned,  
will be system derived.)

b. SPCC NUMBER

044870

If the SPCC number is not entered, complete  
the Facility Identification Form.

ENTER THE FOLLOWING ONLY IF THE RESPONSIBLE ORGANIZATION (RO) IS OTHER THAN THE OWNER/OPERATOR OF THE FACILITY

c. RO NAME

RO MAILING ADDRESS

d. STREET

e. CITY

10

f. STATE

g. ZIP

h. RO TELEPHONE

ENTER THE FOLLOWING ONLY IF THE LOCATION OF THE SPILL IS OTHER THAN THE LOCATION OF THE FACILITY

2a. REGION

b. STATE

c. COUNTY

d. CITY

GEOGRAPHIC LOCATION

e. LATITUDE-NORTH

DEG MIN SEC

f. LONGITUDE-WEST

DEG MIN SEC

g. SURVEY DESCRIPTION

SECT SECT SECT TOWNSHIP RANGE

h. DIRECTIONS TO SPILL SITE (Optional-25 words or less)

**3. SPILL INFORMATION**

a. SPILL DATE

06/21/77

MO DAY YR

b. SPILL TIME

1510

HR MIN

c. REPORTING DATE

06/21/77

MO DAY YR

d. REPORT'G TIME

1610

HR MIN

e. REPORTED BY (Name)

HOETELIUS

f. TELEPHONE

201-574-5026

g. GENERAL WATER BODY (Check one only)

☒ INLAND

☐ COASTAL

☐ GREAT LAKES

h. SPECIFIC WATER BODY (Check one only)

☐ RIVER

☒ STREAM (creek)

☐ LAKE

☐ RESERVOIR

☐ POND

☐ BEACH

☐ OPEN WATER

☐ BAY (estuary or sound)

☐ PORT (harbor area)

☐ TERMINAL (dock)

☐ CHANNEL

☐ CANAL

☐ INLET

☐ TRIBUTARY

i. WATER BODY NAME (If none, enter "none")

KINGS CREEK

j. RIVER MILE INDEX (If known)

## 4. SPILL MATERIAL

0250651

(Check only one of the following four digit codes which best designates the characteristics of the spilled material.)

## a. BILGE

- |   |   |   |  |
|---|---|---|--|
| <input type="checkbox"/> 1101 ANIMAL OIL  | <input type="checkbox"/> 1107 JET FUEL                            | <input type="checkbox"/> 1112 NO. 4 FUEL  | <input type="checkbox"/> 1117 ENGINE WASTE OIL     |
| <input type="checkbox"/> 1102 ASPHALT     | <input type="checkbox"/> 1108 LUBRICATION OIL                     | <input type="checkbox"/> 1113 NO. 6 FUEL (Bunker C, Navy Special, Residual Oil) | <input type="checkbox"/> 1118 INDUSTRIAL WASTE OIL |
| <input type="checkbox"/> 1103 CREOSOTE    | <input type="checkbox"/> 1109 NAPHTHA                             | <input type="checkbox"/> 1114 PARAFFIN WAX                                      | <input type="checkbox"/> 1119 GREASE               |
| <input type="checkbox"/> 1104 CRUDE       | <input type="checkbox"/> 1110 NO. 1 FUEL (Kerosene, No. 1 Diesel) | <input type="checkbox"/> 1115 VEGETABLE OIL                                     | <input type="checkbox"/> 1120 UNKNOWN OIL          |
| <input type="checkbox"/> 1105 CUTTING OIL | <input type="checkbox"/> 1111 NO. 2 FUEL (No. 2 Diesel)           | <input type="checkbox"/> 1116 BILGE WASTE OIL                                   | <input type="checkbox"/> 1199 OTHER (Specify):     |
| <input type="checkbox"/> 1106 GASOLINE    |   |   |  |

## HAZARDOUS SUBSTANCES

☒ 1299 (Specify trade or common name):

0250651

## OTHER SUBSTANCES

- |                                      |  |
|--------------------------------------|--|
| <input type="checkbox"/> 1301 SEWAGE | <input type="checkbox"/> 1399 MISCELLANEOUS (Specify): |
| <input type="checkbox"/> 1302 SLUDGE |  |

## c. AMOUNT SPILLED

13

## d. AMOUNT REACHING WATER (Enter "0000001" for unknown)

13

## e. AMOUNT UNIT (Check only one of the following unit abbreviations)

- ☒
- GALS
- ☐
- LBS

## 5. SPILL SOURCE (Check only one of the following four digit codes on this page which best describes the spill source.)

## ONSHORE TRANSPORTATION (ONT)

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> 2101 HIGHWAY CARGO TRANSFER | <input type="checkbox"/> 2106 HIGHWAY PASSENGER   | <input type="checkbox"/> 2110 RAIL FUEL          |
| <input type="checkbox"/> 2102 HIGHWAY DRY BULK       | <input type="checkbox"/> 2107 PIPELINE            | <input type="checkbox"/> 2111 RAIL GENERAL CARGO |
| <input type="checkbox"/> 2103 HIGHWAY FUELING        | <input type="checkbox"/> 2108 RAIL CARGO TRANSFER | <input type="checkbox"/> 2112 RAIL LIQUID BULK   |
| <input type="checkbox"/> 2104 HIGHWAY GENERAL CARGO  | <input type="checkbox"/> 2109 RAIL DRY BULK       | <input type="checkbox"/> 2199 OTHER (Specify):   |
| <input type="checkbox"/> 2105 HIGHWAY LIQUID BULK    |   |  |

## OFFSHORE TRANSPORTATION (OFT)

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> 2201 BULK CARGO TRANSFER | <input type="checkbox"/> 2206 NAVAL VESSEL            | <input type="checkbox"/> 2211 TANK BARGE        |
| <input type="checkbox"/> 2202 DRY CARGO BARGE     | <input type="checkbox"/> 2207 NON-BULK CARGO TRANSFER | <input type="checkbox"/> 2212 TANKER            |
| <input type="checkbox"/> 2203 DRY CARGO VESSEL    | <input type="checkbox"/> 2208 PASSENGER VESSEL        | <input type="checkbox"/> 2213 TOWBOAT (Tugboat) |
| <input type="checkbox"/> 2204 FISHING VESSEL      | <input type="checkbox"/> 2209 PIPELINE                | <input type="checkbox"/> 2299 OTHER (Specify):  |
| <input type="checkbox"/> 2205 FUELING             | <input type="checkbox"/> 2210 RECREATIONAL VESSEL     |   |

## ONSHORE NONTRANSPORTATION (ONN)

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> 2301 BULK STORAGE                             | <input type="checkbox"/> 2304 PIPELINE (Flowline or other Intra-facility) | <input type="checkbox"/> 2306 REFINERY         |
| <input checked="" type="checkbox"/> 2302 INDUSTRIAL PLANT (Processing) | <input type="checkbox"/> 2305 PRODUCTION (Oil or Gas)                     | <input type="checkbox"/> 2399 OTHER (Specify): |
| <input type="checkbox"/> 2303 MARKETING DISTRIBUTORS                   |   |  |

## OFFSHORE NONTRANSPORTATION (OFN)

- |   |   |  |
|---|---|--|
| <input type="checkbox"/> 2401 DRILLING (Oil or Gas) | <input type="checkbox"/> 2402 PIPELINE (Flowline or other Intra-facility) | <input type="checkbox"/> 2403 PRODUCTION |
| <input type="checkbox"/> 2499 OTHER (Specify):      |   |  |

## 6. SPILL CAUSE (Check only one of the following four digit codes on this page which best describes the spill cause.)

## CASUALTY

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> 3101 CAPSIZING (Overturning)          | <input type="checkbox"/> 3104 EXPLOSION | <input type="checkbox"/> 3107 SINKING (Floundering) |
| <input type="checkbox"/> 3102 COLLISION WITH FIXED OBJECT      | <input type="checkbox"/> 3105 FIRE      | <input type="checkbox"/> 3108 WELL BLOWOUT          |
| <input type="checkbox"/> 3103 COLLISION WITH VEHICLE OR VESSEL | <input type="checkbox"/> 3106 GROUNDING | <input type="checkbox"/> 3199 OTHER (Specify):      |

## EQUIPMENT FAILURE

- |   |  |   |
|---|--|---|
| <input type="checkbox"/> 3201 ALARM               | <input type="checkbox"/> 3206 HOSE RUPTURE     | <input type="checkbox"/> 3210 WELD FAILURE, FACTORY       |
| <input type="checkbox"/> 3202 AUTOMATIC SHUTDOWN  | <input type="checkbox"/> 3207 PIPELINE RUPTURE | <input type="checkbox"/> 3211 WELD FAILURE, FIELD         |
| <input type="checkbox"/> 3203 CORROSION, PIPELINE | <input type="checkbox"/> 3208 PUMP             | <input checked="" type="checkbox"/> 3299 OTHER (Specify): |
| <input type="checkbox"/> 3204 CORROSION, TANK     | <input type="checkbox"/> 3209 TANK RUPTURE     | UNKNOWN   |
| <input type="checkbox"/> 3205 DEFECTIVE VALVES    |  |   |

## PERSONNEL ERROR

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> 3301 INCORRECT VALVE HANDLING | <input type="checkbox"/> 3303 IMPROPERLY SECURED FLANGES | <input type="checkbox"/> 3399 OTHER (Specify): |
| <input type="checkbox"/> 3302 IMPROPER HOSE CONNECTION | <input type="checkbox"/> 3304 TANK OVERFLOW              |  |

## DELIBERATE DISCHARGES

- |   |  |  |
|---|--|--|
| <input type="checkbox"/> 3401 DUMPING               | <input type="checkbox"/> 3404 PUMPING BILGES | <input type="checkbox"/> 3499 OTHER (Specify): |
| <input type="checkbox"/> 3402 DISPOSAL OF WASTE OIL | <input type="checkbox"/> 3405 VANDALISM      |  |
| <input type="checkbox"/> 3403 PUMPING BALLAST       |  |  |

## NATURAL PHENOMENON

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> 3501 FLOODING   | <input type="checkbox"/> 3504 HEAVY WINDS     | <input type="checkbox"/> 3599 OTHER (Specify): |
| <input type="checkbox"/> 3502 FREEZING   | <input type="checkbox"/> 3505 NATURAL SEEPAGE |  |
| <input type="checkbox"/> 3503 HEAVY SEAS |   |  |

## 7. COMMENTS - INCLUDING REMOVAL METHOD (Optional-25 words or less)

Merck & Co  
Rahway N.J.



RECEIVED  
MAR 24 1981  
BOARD OF HEALTH

State of New Jersey  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
DIVISION OF WATER RESOURCES  
P. O. BOX CN 029  
TRENTON, NEW JERSEY 08625

ARNOLD SCHIFFMAN  
DIRECTOR

March 24, 1981

Mr. Henry F. Gavan  
Health Officer  
City of Linden  
Board of Health  
Union County, NJ 07036

Dear Mr. Gavan:

This is in reply to your letter concerning wells in the City of Linden. Enclosed is a list of wells which we have on file.

We would appreciate your sending us the results of your evaluation of the list so that our files can be brought up to date.

If I may be of further assistance, feel free to contact me again.

Sincerely yours,

*Carol S. Lucey*  
Carol S. Lucey  
Supervising Geologist  
Water Allocation Section

lf  
Enclosure

[illegible]

WELL NO.	LINDEN	OWNER	LOCATION	YEAR DRILLED	CASING DIAM.	YIELD GPM	FORMATION	DEPTH	SCREEN SETTING OR DEPTH OF CASING	STATIC LEVEL	PUMPING LEVEL HOURS PUMPED	DRAW-DOWN	PUMP DEPTH 800000	REMARKS, USE, ETC.
		Standard Oil	26-22-78	10	8	-		383		25	11	-		
		"	26-22-78					1566		22				Brackish
		United Lagoon	26-31-319	47	8	100		500						100 Elizabeth Ave
		Volupte, Inc	26-22-749	35	8	16		368			150			Edgar & Dennis St
		Eastern Packing	26-21-975	50	8	100		400		11	138			416 Linden Ave 26-202
		Linden Milk Co	26-31-339	22		50		140		26				
		Park Plast. Co	26-22-772	50	6	60		255	32 1/2	7	65	6		940 Park Ave 26-179
		Morton Salt	26-21-983	79	8 1/2	8		155	23	45	88	2	8	Rd 25 26-119
		Rosehill Cem.	26-21-997	09		15		209		15	17			
		Pacific Air <sup>Corp</sup>	26-31-355	50	8	80		300	31	100				Linden Airport 26-174
		Pa RR Sta		03		21		122						
✓		Walter Helander	26-3-466	52	6	5		96	40	12				828 Smith St 26-530
		Linden Cem. Ass	26-21-995	12		21		71	-					near R.R.
		Brown Swiss Dairy	2	12	6	40		187	-	10				on road to Tremley Pt.
		W. J. Barrow		12	6	74		226		4				
		Race Truck	-	89										12 wells 30-100' Deep
		Linden City Laundry		31		9		300						
		Hollywood Drive-in	26-31-332	50	8	20		170	30	19	25			Edgar Rd. 26-219
		#1 Hatfield Wire CABLE	26-31-288	58	12	40		175	40	8 1/4"	150	8	MI	Capped
		#2		59	12	325		356	45 1/2"	11	53	8	42	
		#1	26-31-239	59	12	323		350	52	4 1/2"	81	24	76 1/2'	
		Delta Knit Finishes	26-31-265	72	6	90		359	41	50				362 Cantor Ave



Hmw  
**MERCK CHEMICAL MANUFACTURING DIVISION**

MERCK & CO., INC. • RAHWAY, NEW JERSEY 07065

77 FEB 14 PM February 7, 1977

Mr. Richard Bellis  
Assistant Director  
Pollution Control Monitoring,  
Surveillance & Enforcement  
Dept. of Environmental Protection  
P.O. Box 1390  
Trenton, New Jersey 08625

Dear Sir:

On January 31, 1977, on a routine inspection tour of the site perimeter and Kings Creek outfalls a dense, dark substance was observed at Outfall 003 creek bed. The impurity proved to be orthodichlorobenzene (ODCB).

Since the material was contained between the outfall pipe and the dam (flow measurement weir), it was concluded this was a Merck concern and the emergency crew was dispatched to remove it from this outfall leading to Kings Creek. Our inventory of emergency spill cleanup materials was moved to the site. With the abnormal freezing temperatures it became necessary to pump the solvent to the adjacent wooded area for removal later under improved weather conditions. A salt-hay fence was set up at the dam face to contain any suspended ODCB.

During the cleanup operation Messrs. R. Harrison and E. Stevenson, DEP, investigated the operation and reported that the contaminated area was a "spill situation" and as such should have been reported to the authorities. This was done expeditiously. The inspectors offered their assistance in the cleanup operation. A sand ridge was installed below the concrete dam to contain any runoff. At no time did the material enter the main stream of the creek.

After a thorough investigation, it was concluded that some splashing from a line break on the ODCB still pump on the TBZ pad must have entered into the deluge system weir overflow which discharges to the surface drain and ultimately to the creek. The pump lines are to be replaced with stainless steel.

Later that day while touring the TBZ area, the inspectors noted an oil slick at the surface drain. A hydraulic line on a truck crane failed losing a pint of hydraulic fluid. This was also reported to the EPA office in Edison.

At this time the land contaminated mass has been removed from the area for drumming for chemical disposal. The hay has been incinerated.

Again we regret the incidents and please feel free to call if further clarification is desired. Area Code (201) - 574-5026.

/bwk

cc: Mr. William Librizzi, Jr.  
EPA Edison  
N.J. Surveillance & Analysis Division  
Edison, New Jersey 08817

Very truly yours,

B. W. Hartelius

B. W. Hartelius  
Manager Environmental Control

File  
B



# MERCK CHEMICAL MANUFACTURING DIVISION

MERCK & CO., INC. • RAHWAY, NEW JERSEY 07065

July 9, 1976

HWM

Mr. William Honachefsky  
Raritan River Basin Manager  
Surveillance & Enforcement  
Dept. of Environmental Protection  
P.O. Box 1390  
Trenton, New Jersey 08625

Dear Sir:

Confirming my telephone conversation with your office this morning, we regretfully report an accidental spill of a dilute cobalt catalyst solution into former outfall 002 of Kings Creek. While the quantity was minimal, the blue dye did color the creek flow and dispersed rapidly upon dilution.

The spill was caused by an overflow of the chemical sewer drain into the deluge system overflow which apparently contained some of the cobalt dye from a previous cleanout. The excessive volume was the result of a diversion of the main pad sewer system flow in order to perform mechanical work on the drainage effort. The entire system was rinsed with a copious quantity of water.

As you are aware, we are essentially completing a vast repiping of the chemical and surface drains in the area and it is imperative that contamination of the deluge system overflow be eliminated. Corrective action will continue until the entire system functions as designed.

We regret the occurrence, and if you have any further questions regarding the spill please feel free to call. (201) 574-5026.

Very truly yours,

*B. W. Hartelius*

B. W. Hartelius  
Environmental Control Manager

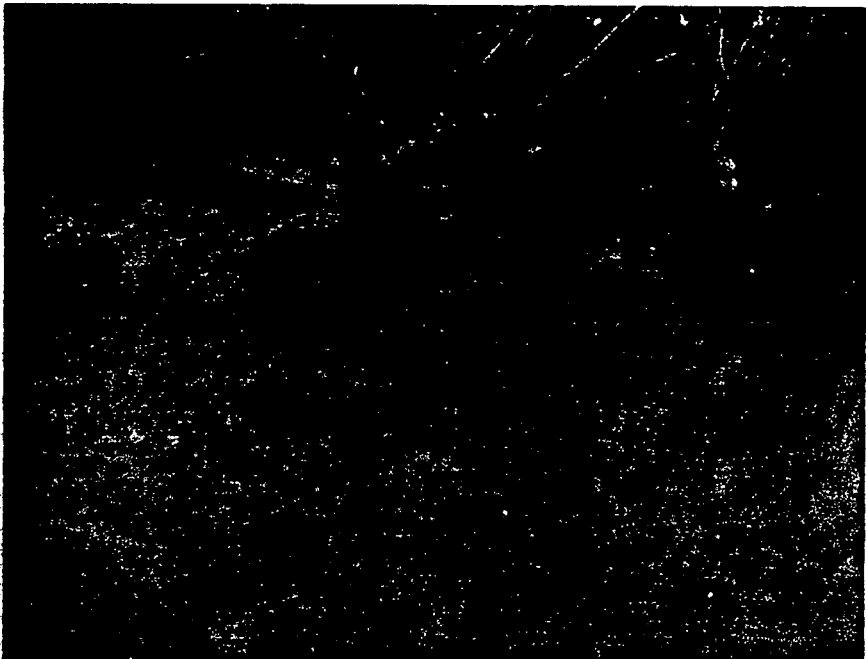
BWH:pf

cc: Mr. Nicholas J. Casselano  
Environmental Engineer  
United States Environmental  
Protection Agency, Region II  
26 Federal Plaza  
New York, New York 10007

USER INSTRUCTIONS		REORDER INSTRUCTIONS	
<ul style="list-style-type: none"> <li>• REMOVED FROM MESSAGE</li> <li>• PRINTS/ENLARGEMENTS/REPRODUCTION</li> <li>• YOUR DEALER</li> <li>• FILM OR REMOVE IT FROM SLEAVE</li> </ul>	<ul style="list-style-type: none"> <li>• INDICATE PICTURE NUMBER FROM MESSAGE</li> <li>• SHOW GEOMETRY PRINTS/ENLARGEMENTS REQUIRED</li> <li>• ORDER THROUGH YOUR DEALER</li> <li>• PLEASE DO NOT CUT FILM OR REMOVE IT FROM SLEAVE</li> </ul>	<ul style="list-style-type: none"> <li>• INDICATE PICTURE</li> <li>• SHOW GEOMETRY</li> <li>• ORDER THROUGH</li> <li>• PLEASE DO NOT CUT</li> </ul>	<ul style="list-style-type: none"> <li>• INDICATE PICTURE</li> <li>• SHOW GEOMETRY</li> <li>• ORDER THROUGH</li> <li>• PLEASE DO NOT CUT</li> </ul>

KING'S CREEK  
2/6/80

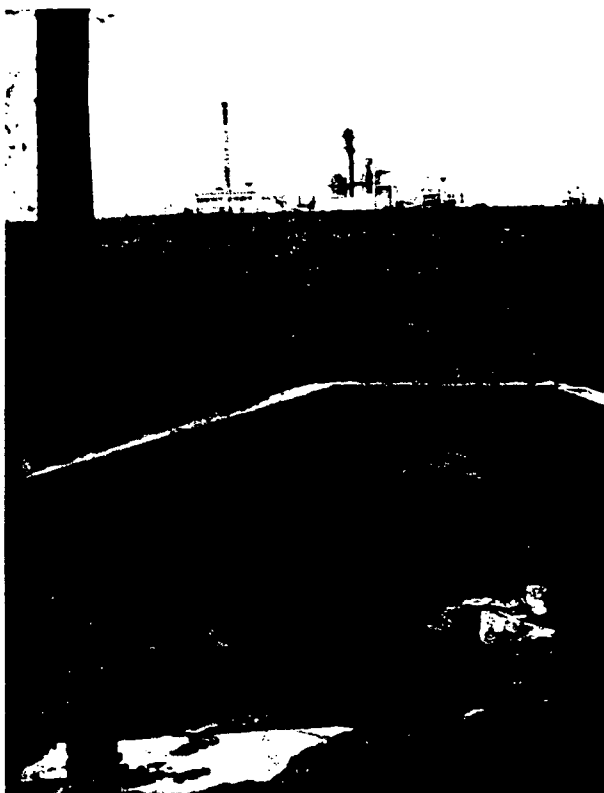
BLACK SUBSTANCE IN  
LOW POINTS IN KING'S  
CREEK. THIS MATERIAL  
WAS PUMPED OUT OF  
THE CREEK BY MERCK  
& CO. ON FEB. 7, 1980



Oil and acid discharges at Merck + Co., highway

6

#1



#2



#3



#1, 2 Discharge of concentrated HCl (pH approx 1.0) from 002, discovered by C. Johnson and D. Cutugno on July 25, 1979.

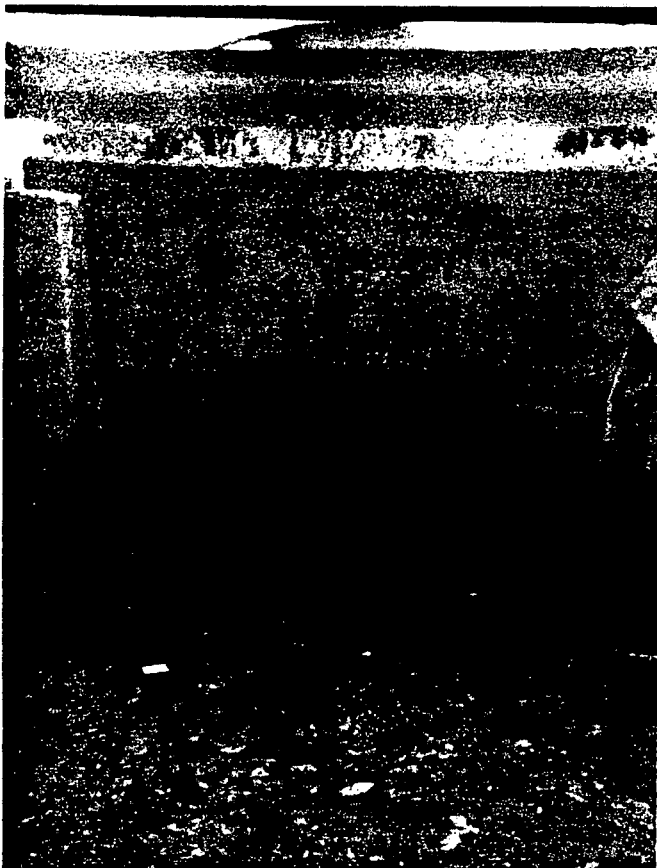
#3 Heavy oil accumulation behind weir of outfall 003. This oil was eventually drained into Kings Creek...

D. Cutugno/C. Johnson 7/25/79

Discharges at Merck and Company, Inc., Rahway



Hydrochloric acid leaked  
from a bad pipe  
connection and  
emptied into a  
deluge system drain  
(arrow).

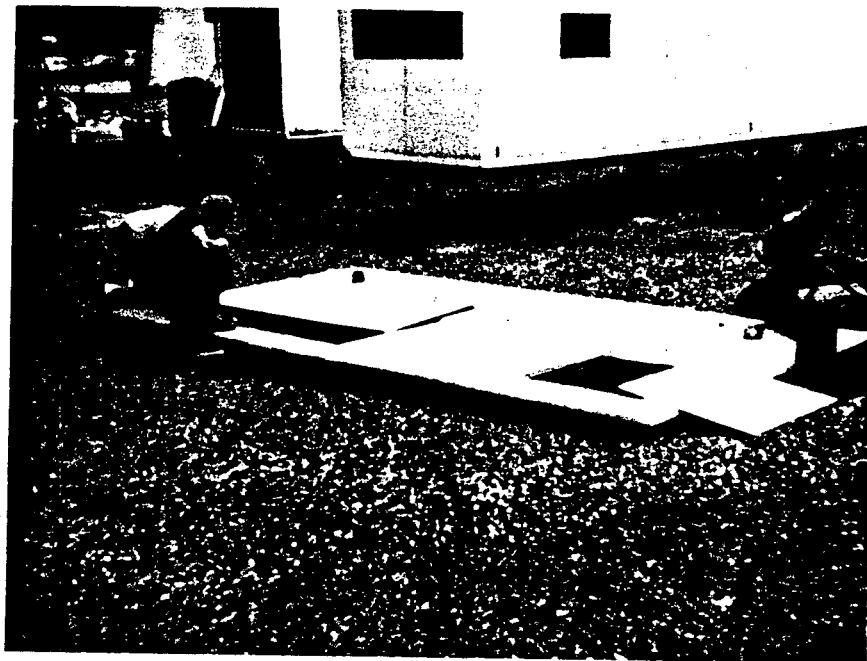


Kings Creek as it flows  
under Rt. 1, downstream  
of acid and oil discharge.  
Merck + Co. disclaims  
any clean up responsibilities...

E. Kurtaran/D. Cutugno  
8/1/79

6

Discharges at Merck & Company, Inc., Rahway



An inefficient pump in this sump to the sanitary system resulted in an overflow to the storm drainage system.



Discharge outfall from sanitary sump above. The water being discharged is used to spray 55 gallon drums stored outside on the premises of Merck & Co.

E. Kurtaran / D. Cutugno

8/1/79

**NPDES PLANT INSPECTION  
AND  
STATUS REPORT FORM**

*Hmw*

Company Name : *...*  
Permit No. : *...*  
Location : *...*  
Mailing Address : *...*

Date of Inspection: *...*  
Date(s) of Previous Inspection(s): *...*  
Inspector(s): *...*  
Receiving Waters: *...*  
W.Q. Classification: *...*  
Weather Condition: *...*

Company Representative(s), Title(s):

*...*

Number of Discharges Reported: *...*  
Number of Discharges Observed: *...*  
Action Taken or Planned on Unreported Discharges:

*...*

**(1) PROCESS**

- (a) Industrial Process: *...*
- (b) Reported Production: *...*
- (c) Current Production: *...*
- (d) Rated Production: *...*
- (e) Raw Materials Used: *...*
- (f) What process modification, expansions, etc. have been made that would

either increase or decrease raw waste loads, water usage, etc. that have not been previously reported:

*...*

(g) Process flow diagram indicating wastewater sources (attach copy if on file and verify with company):

(h) Continuity of Operation: Batch Semi-Continuous  
Continuous

**(2) EFFLUENT LIMITATIONS VIOLATIONS (Based upon Self-Monitoring Data)**

<u>Discharge No.</u>	<u>Parameter</u>	<u>Permit Limitation</u>	<u>Reported Discharge</u>	<u>Date/Period of Violation</u>
----------------------	------------------	--------------------------	---------------------------	---------------------------------

Hmu/62

(3) COMPLIANCE

- (a) Is company complying with schedule of compliance?
- (b) What is the current projection of the company regarding compliance with future dates in Compliance Schedule?

Can't meet 7-1-77 due to delays.

Problem is under investigation by Company.

- (c) Is company complying with any additional compliance requirements such as a special report submittal to either EPA or another Agency?

Yes

- (d) Has company notified EPA of any non-compliance with permit conditions?

yes, by report and telephone.

- (e) Has company requested modification of any permit conditions other than permit sampling schedules?

- (f) Are any modifications appropriate?

No, sampling schedule is adequate.

(4) SELF-MONITORING PROGRAM

- (a) Does quantity of reported self-monitoring data and signing official comply with requirements of permit?

- (b) What is the apparent quality of plant records that are required under the conditions of the permit?

- (c) If net values are applicable, is the surface water intake sampled and analyzed?

- (d) Is there any additional monitoring being performed by the plant that has not been reported? If yes, what parameters and frequency is involved and what conclusions can be drawn from data?

- (e) Do sampling locations appear to be adequate to obtain representative samples?

- (f) Has company identified effluent sampling point used for each discharge pipe by providing a sketch of flow diagram?

- (g) How frequently and accurately is continuous monitoring equipment calibrated, and how well is the equipment maintained?

Yes

Ba  
Hm u

(h) In your judgement, do sampling procedures, frequency and type of sample typify plant's daily discharge (i.e. are maximum production periods, batch discharges, etc. reflected in monitoring data)?

OK, although continuous monitoring better. (Q.C. Lab.)  
(i) Does plant perform its own analysis?  
If not, what laboratory is analysis contracted to?  
If yes, what is the appearance of plant's laboratory?  
very good.

(j) Do all sampling and analytical methods conform to the guidelines published pursuant to Section 304(g) of 1972 FWPCAA?  
yes.

(k) Has plant requested modification to permit sampling schedules?  
No.

(l) Are any modifications appropriate?  
No. but for 30 day term.

(5) MISCELLANEOUS

(a) Did the permit application truly represent conditions at the plant site?  
Slightly off but not significantly.

(b) Are any of the following toxic pollutants per Section 307(a) of 1972 FWPCAA being discharged that would require modification of the permit: Aldrin, dieldrin, benzidine and its salts, cadmium and all cadmium compounds, cyanide and all cyanide compounds, DDD (TDE), DDE, DDT, endrin, mercury and all mercury compounds, polychlorinated biphenyls, and toxaphene?  
If yes, what modifications are necessary?

(c) Is sludge being generated at plant? ~~no~~ Yes  
If yes, is plant reporting on its disposal?  
If sludge disposal is at plant site, is there any visual evidence of entry of this material into navigable waters?  
If not at plant, where is the disposal site, and is it acceptable to regulatory agencies?

(d) What is the appearance of plant grounds?  
at chemical storage area.

(e) Is there any discharge of unreported contaminated storm runoff?  
Spillages when at waste treatment stage.

(f) Is the treatment system maintained in good working order and operated efficiently as possible?  
yes, many areas.

(g) Is a full time registered treatment plant operator required?  
If yes, does the permittee have one?

H m w 32

- (h) What alternate power supply provisions exist for waste treatment facilities?  
If none, what happens to the wastewater when there is a power failure?
- (i) Have all bypasses of waste treatment facilities been eliminated:  
If not, why? If not, is flow monitoring installed in bypass?
- (j) Are there any obvious air emission, noise, radiation, pesticides, or solid wastes problems at the plant?  
What are they?  
If yes, send copy of this report to the appropriate personnel.
- (k) Does plant require a Spill Prevention Control Countermeasure Plan?  
(Note: SPCC plan is required if the permittee stores more than:  
1. 1,320 gallons of oil above ground;  
2. 660 gallons of oil in a single container above ground;  
3. 42,000 gallons of oil underground.)

If so, is the plan approved by a licensed P.E?

H.M.W.  
62

SUMMARY AND RECOMMENDATIONS

Violations and/or Problems

Recommended Action

~~Unpermitted~~ discharges

24" pipe  
18"

Co. has trouble working  
pressure limitations  
and to prevent splashing  
of waste chemicals.

Comments

Inspector Signature: \_\_\_\_\_  
Name, Title, & Date: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Copies to: (check if sent)

Initialed: \_\_\_\_\_

State \_\_\_\_\_  
EPA Attorney \_\_\_\_\_  
Original to Group File \_\_\_\_\_  
Other \_\_\_\_\_ (Indicate)

Group Leader: \_\_\_\_\_  
Section Chief: \_\_\_\_\_

4/11/82  
FEB 22 1982

Mr. Tom Puchalski  
Manager Environmental Control  
Merck & Company  
P. O. Box 2000  
Building R51-12  
Rahway, NJ 07065

Re: Compliance Monitoring Inspection  
Merck Chemical Division  
Rahway  
NPDES Permit No. NJ 0002348

Dear Mr. Puchalski:

On October 1, 1981, a compliance monitoring inspection was conducted at Merck Chemical by Division personnel.

The inspection revealed an unpermitted discharge from a 24 inch pipe at the north end of the property near the TBE area. It was determined that sump pumps that discharge this wastewater to the sanitary sewer were malfunctioning and the bypass was discharging to King's Creek. It was also determined that this bypass would occur during periods of heavy rainstorms. This wastewater discharge was found to have a COD of 369 mg/l, a total dissolved solids of 1,344 mg/l, and 34 ug/l of m-xylene.

Therefore, Merck and Company is directed to apply for a NPDES stormwater permit for the 24 inch discharge pipe that bypasses the sanitary sewer. The permit application may be obtained by contacting Dr. Richard A. Baker, USEPA, 26 Federal Plaza, New York, NY 10278. Written documentation of this modification request must be submitted to this Office by April 1, 1982.

Enclosed for your information are copies of the inspection report and laboratory analyses of samples collected at the time of inspection.

Mr. Tom Puchalski  
Page 2

Should you have any questions concerning this letter, please  
contact Mr. Paul Harvey at (609) 292-0686.

Very truly yours,

*Charles L. Maack*  
Charles L. Maack  
Supervising Environmental Engineer  
Region II  
Enforcement & Regulatory Services Element

A43:G9

Enclosure

cc: Dr. Richard A. Baker, USEPA Region II  
bcc: Enf. File  
Harvey  
Maack  
Mount  
NPDES File  
Mumman/Region II File



NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION  
DIVISION OF WATER RESOURCES  
P.O. Box 2809 Trenton, N.J. 08625



DISCHARGE SURVEILLANCE REPORT

PERMIT #: NJ 0002348 NO. OF DISCHARGES: 3 CLASS: MAJ.

DISCHARGER: MERCH & COMPANY

OWNER: \_\_\_\_\_

MUNIC: RAHWAY COUNTY: UNION WATERSHED CODE: II

LOCATION: RT. 1

RECEIVING WATERS: KINGS CREEK, RAHWAY RIVER STREAM CLASS: FW-2 NON-TRIBUT

LIC. OPERATOR & PLANT CLASS: \_\_\_\_\_

TRAINEE/ASST: \_\_\_\_\_ OTHER INFO: \_\_\_\_\_

MAJOR DEFICIENCIES NOTED: UNPERMITTED 24" OUTFALL PIPE - FLOWING.  
SEMP PUMPS MALFUNCTIONING.

OVERALL RATING: ☐ Acceptable ☒ Conditionally Acceptable ☐ Unacceptable

EVALUATOR: PAUL HARVEY TITLE: ENVIRONMENTAL SPECIALIST

INFORMATION FURNISHED BY: (name) TOM PUCHALSKI  
(title) MANAGER ENVIRONMENTAL CONTROL (organization) \_\_\_\_\_

DATE OF INSPECTION: 10/1/81

N.J.D.E.P.  
D.W.R.

## DISCHARGE SURVEILLANCE REPORT

Page 2 of 3 (I)  
Permit #: NJ 0002348  
Date: 10/1/81

## INDUSTRIAL TREATMENT PROCESS EVALUATION

RATING CODES: S = Satisfactory M = Marginal U = Unsatisfactory NA = Not Applicable

	RATING	COMMENTS
GENERAL	DISCHARGE #	003 004 005
	WASTEWATER SOURCE(S)	COOLING, RYNOFF
	CONTINUITY OF OPERATION	CONTINUOUS
	BYPASSES/OVERFLOWS	
	S.P.C.C. PLAN	
	ALARM SYSTEMS	
	ALTERNATE POWER SUPPLY	
TREATMENT PROCESSES		
SLUDGE HANDLING		
INFORMATION	DISPOSAL SITE	
	FLOW METER & RECORDER	<del>S</del>
	RECORDS	S
	SAMPLING PROCEDURES	
	ANALYSES PERFORMED BY	
OTHER	FINAL EFFLUENT APPEARANCE	S
	REC. WATERS APPEARANCE	S



N.J.D.E.P.  
D.W.R.

DISCHARGE SURVEILLANCE REPORT



Permit #:

Page 2 of 3 (I)

Date: 10/1/81

INDUSTRIAL TREATMENT PROCESS EVALUATION

RATING CODES: S = Satisfactory M = Marginal U = Unsatisfactory NA = Not Applicable

		RATING	COMMENTS
GENERAL	DISCHARGE #	---	UNPERMITTED 24" DISCHARGE PIPE - NORTH END
	WASTEWATER SOURCE(S)	---	RUNOFF FROM PROCESS AREA → SANITARY SEWER (MANUAL)
	CONTINUITY OF OPERATION	---	INTERMITTENT -
	BYPASSES/OVERFLOWS	U	PUMPS MALFUNCTIONING
	S.P.C.C. PLAN		
	ALARM SYSTEMS		
	ALTERNATE POWER SUPPLY		
TREATMENT PROCESSES	FLOW		1-2 GPM
SLUDGE HANDLING			
OTHER INFORMATION	DISPOSAL SITE		
OTHER	FLOW METER & RECORDER RECORDS		
OTHER	STORM WATER	U	WILL DISCHARGE DURING RAIN STORM UNPERMITTED
OTHER	FINAL EFFLUENT APPEARANCE	U	ODOR, TURBID
OTHER	REC. WATERS APPEARANCE	S	



DISCHARGE SURVEILLANCE REPORT

Permit # NJ 0002348  
Date 10/1/81

PLANT DIAGRAM AND FLOW SEQUENCE:

005 — COOLING & STORM WATER → STORM SEWERS → RAHWAY RIVER  
SOUTH END

004 — COOLING & STORM WATER FROM RESEARCH AREA → KING'S CREEK  
EAST END (FRONT)

003 — RYNDOFF FROM PROCESS AREA → KING'S CREEK  
SOUTH EAST END

024 — UNPERMITTED — BYPASS TO KING'S CREEK  
NORTH END

DISCHARGE DATA → SEE ATTACHED SHEETS

SOURCE: \_\_\_\_\_

PERIOD: \_\_\_\_\_

DIS	PARA	SAMPLE TYPE	PERMIT LIMITS	DATA	DIS	PARA	SAMPLE TYPE	PERMIT LIMITS	DATA

MONITORING DEFICIENCIES: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

BACT. LAB NO. \_\_\_\_\_  
DATE REC'D. \_\_\_\_\_  
BOTTLE NO. 06558  
DATE REC'D. \_\_\_\_\_  
STORET ENT. \_\_\_\_\_  
READ \_\_\_\_\_

Sample No.

[illegible]

**RESULTS mg/L unless otherwise noted**

Phosphorus: tot as P ☐ P665, ☒ P650, 1.20

To (Name)

## Abstract Review

Part 3( ) - Water Resources Copy (For Transmission)  
Part 4( ) - Bacteriology Copy





BACT. LAB NO. \_\_\_\_\_  
DATE REC'D. \_\_\_\_\_  
BOTTLE NO. 06557  
DATE REC'D. \_\_\_\_\_  
STREET ENT. \_\_\_\_\_  
READ \_\_\_\_\_

Sample No.

[illegible]

**RESULTS mg/L unless otherwise noted**

To (Name)

STORED \_\_\_\_\_  
READ \_\_\_\_\_

BLANK # 21432

**HOUR**

[illegible]

**RMKS.**

[illegible]

☐ BOD      ☐ 5-DAY P310,      

--	--	--	--	--	--

  
☐ 6-DAY P312,      

--	--	--	--	--	--

TO (NAME)

## WATER ANALYSIS

BACT. LAB NO. \_\_\_\_\_  
DATE REC'D. \_\_\_\_\_  
BOTTLE NO. 06558  
DATE REC'D. \_\_\_\_\_  
STRET ENT. \_\_\_\_\_  
READ \_\_\_\_\_

**HOUR**

## FIELD ANALYSIS

## ANALYSIS

## UNITS

**PARAMETER****VALUE**

RMKS.

[illegible]

## BIOCHEMICAL OXYGEN DEMAND

INITIAL D.O. (lab.) \_\_\_\_\_ SAMPLE

SEED YES ☐ NO ☐

CONC. %

**BOD**

☐ BOD

☐ 5-DAY P310,  
☐ 6-DAY P312.

DATE \_\_\_\_\_

TIME

**CHAIN OF CUSTODY**  
**FROM (NAME)**

TO (NAME)



C

# MERCK CHEMICAL DIVISION

MERCK & CO., INC. • RAHWAY, NEW JERSEY 07065

May 19, 1975

*It w m*

Mr. R. Hills, Chief Inspector  
Central Jersey Regional Air  
Pollution Control Agency  
655 Amboy Avenue  
Woodbridge, New Jersey 07095

Dear Richard:

RE: Ammonia & TBZ Odors

On May 12, 1975 at 1 A.M. a strong ammonia odor emanating from King's Creek along Route #1 was reported by the Linden police. Mr. R. Bartz, Merck supervisor, was called to the plant and after finding the source of the problem at Bldg.92 had the Merck Fire Department flush the lines to the creek.

At 2:30 A.M. Mr. L. Dubino was called into the plant in response to a guard's call to Mr. Bartz. Lou took Al Lauritsen, CNJAPCA, on a tour of the plant and showed him the source of the problem - a safety relief valve on a heat exchanger was discharging to the Bldg.92 pad and overflowing to the surface drain. The TBZ odor was probably rinsings from the area. The odor problems apparently had disappeared while the tour was in progress.

Investigating the problem the following day it appears that a pressure switch on a water pump to the heat exchanger had failed and the combination of ammonia and water pressure exceeded the relief valve pressure setting. If the plant were operating at full capacity the pressure would not have exceeded the setting.

While we do try to foresee all these problems before they occur, changes in schedules do alter normal flows of raw materials.

Citation received May 16, 1975.

Yours very truly,

*B. W. Hartelius*

B. W. Hartelius, Manager  
Environmental Control

BWH:bwk

C



*76 RAMPART, Mend.* *HWm*  
**MERCK CHEMICAL MANUFACTURING DIVISION**

MERCK & CO., INC. • RAHWAY, NEW JERSEY 07065

*220 p.m.*  
December 6, 1976

Mr. Richard Bellis  
Assistant Director  
Pollution Control Monitoring,  
Surveillance & Enforcement  
Dept. of Environmental Protection  
P.O. Box 1390  
Trenton, New Jersey 08625

RECEIVED  
DEC 11 1976  
DEPT. OF ENVIRONMENTAL  
CONTROL

Dear Sir:

On Tuesday, November 23, 1976, at 4 P.M., Messrs. R. Harrison and E. Stevenson, Water Resources Division, Department of Environmental Control, visited the plant as a result of an ammonia odor emanating from Kings Creek. During the ensuing inspection tour, two other abnormalities were observed, i.e., a colored discharge from the barn area and an oil slick on the outfall stream. The probable cause and program to prevent recurrences are as follows:

- a. Ammonia odor - A break in the liquid ammonia line to the refrigeration building required a shutdown of the system and relief of ammonia pressure. The ammonia was absorbed in water, as part of the shutdown procedure, and in dumping the solution some was inadvertently drained to the surface water network. Repairs to the piping were made expeditiously. Appropriate emergency measures will be taken in the future to insure such effluent will be diverted to the chemical waste stream.
- b. Animal wastes - The greenish colored effluent the inspectors observed at outfall 003 was traced to animal wastes and barn washings. A plugged sewer line caused the lift stations to overflow while repairs were in progress. The tank effluent was temporarily pumped to a secondary sanitary sewer outlet until repairs were completed. It was found to be caused by animal feed pellets which packed the 4 inch sewer line. Obviously the repair crew must be trained to divert the effluent completely in such emergencies before investigating the source of the problem.

cc: Mr. William Librizzi, Jr.  
EPA Edison  
N.J. Surveillance & Analysis Division  
Edison, New Jersey 08817

Mr. Nicholas J. Casselano  
Environmental Engineer  
United States Environmental  
Protection Agency, Region II  
26 Federal Plaza  
New York, New York 10007

12/6/76

HWM

- c. Oil slick - While the source of the oil was probably parking lot surface drainings, an ortho dichlorobenzene (ODCB) odor was detectable in the creek bed. The ODCB was traced to a 3 gallon sump in a surface drain in the operations area above which a tank wagon had been cleaned after an ODCB pumping operation. The residue was ultimately washed into the creek by a wash-down operation. After the spill the drain was sealed. Being heavier than water the ODCB ultimately settled into the creek bed.

To contain the oil two "hay" fences were constructed across the creek and the outfall. Coastal Services, Inc. was called in to assist in the containment using booms and adsorbent. The hay and adsorbents will be disposed of by incineration. The ODCB, sand mixture will be physically removed and drummed for land disposal.

A permanent fence will be installed and an inventory of hay and adsorbent material will be made readily available. We are also investigating a contractual agreement with an oil spill and hazardous chemical firm to assist in the event of future spills. We have undertaken a program of color-coding surface drains and chemical drains to avoid the above and other recurrences. Lastly and foremost training is essential for all personnel in all areas to appreciate waste disposal and spill prevention procedures. We will have a refresher course for all personnel concerned to review the above incidents as well as to reaffirm these waste disposal and spill protection procedures.

We regret the incidents and if further clarification is necessary please feel free to call me at Area Code (201) - 574-5026.

Very truly yours,

B. W. Hartelius

B. W. Hartelius  
Manager Environmental Control

BWH:bwk

## INCIDENT REPORT

D.W.M. ASSIGNED CASE NUMBER	82-119-215-001	HOT LINE	<input type="checkbox"/>	INDEXED	<input type="checkbox"/>
DATE	11-01-215-182	TIME (Military)	1111	D.W.M. ID NO.	12103

## INCIDENT REPORTED BY:

NAME	WALTER OLENICK	PHONE	201-648-2560
AFFILIATION	AIR POLLUTION CONTROL	CODE	1
STREET			
CITY	PAR-TROY OFFICE	STATE	N.J.
		ZIP CODE	

## INCIDENT LOCATION:

NAME	MERICK + CO.	PHONE	574-4000
STREET	1126 E. LINCOLN AV.	UTM VERT	1111
CITY	RAHWAY	STATE	N.J.
COUNTY	UNION	ZIP CODE	

SOURCE OF SPILLED AND/OR DISCHARGED SUBSTANCE: ☒ Confirmed ☐ Alleged ☐ More Than 1 Source

COMPANY NAME	MERCK & CO.	PHONE	574-4000
CONTACT		TITLE	
STREET	126 E. LINCOLN AV.	DEP COMPANY NO.	
CITY	RAHWAY	STATE	N.J.
COUNTY	UNION	ZIP CODE	

SUSPECTED SPILLED AND/OR DISCHARGED SUBSTANCE: ☐ Confirmed ☐ Alleged ☐ More Than 2 Substances

1. MERCAPTO COMPOUNDS	SUBSTANCE NO.	
AMOUNT SPILLED	UNITS	A/P/E
200-250	GALLS	
2.	SUBSTANCE NO.	
AMOUNT SPILLED	UNITS	A/P/E

DATE OF INCIDENT	TIME (Military)	TEMP.	WEATHER	WIND (Dir. & Vel.)
11-01-214-182	0030			
SPILL ORIGIN				CODE
CAUSE				CODE
WATER BODY AFFECTED				CODE
ASSOCIATED FIRE AND/OR HAZARDS				CODE

## INCIDENT REFERRED TO: REPORTED TO INITIALLY

AGENCY	CENTRAL JERSEY REGIONAL ENV. HEALTH AG	PHONE	826-3100
CONTACT	RICH HILLS	AGENCY CODE	14010

PRIMARY D.W.M. INVESTIGATOR	NFA 10/25/82	FOLLOWUP	
NO FURTHER ACTION		DATE	

## COMMENTS:

10-24-82
AT 12:30AM. SPILL OF 200-250 GALLONS OF MERCAPTO COMPOUNDS
REPORTED TO CENTRAL JERSEY REGIONAL ENVIRONMENTAL HEALTH
AGENCY AT 3:4AM. ODOUR COMPLAINTS WERE TRACED BACK TO
MERCK & CO.

D.W.M. ASSIGNED CASE NUMBER	84-10-25-001	Page	1 of 2
DATE	10-25-82	TIME	1330
MERCK + CO. SPILL		D.W.M. ID NO.	203

MERCK + CO. SPILL

10-25-82 1315

I CALLED MERCK + CO. AND SPOKE TO TOM PULCHALSKI, ENV. CONTROL MANAGER, ABOUT THE MERCAPTAN SPILL. HE SAID THAT THE COMPOUND WAS 2-MERCAPTO-4-METHYL THIAZOLE. THE ~~MATERIAL~~ SPILL HAPPENED ON A PAD. THE MATERIAL WAS FLUSHED INTO THEIR INTERNAL EQUALIZATION-NEUTRALIZATION TREATMENT SYSTEM. HE ESTIMATED THAT THE SPILL INVOLVED 150-200 GALLONS. AFTER TREATMENT THE MATERIAL WAS DISCHARGED INTO THE LINDEN-ROSELLE SEWERAGE AUTHORITY SYSTEM. HIS PHONE # IS 201-574-5361.

10-25-82 1325

PHONE # 201-826-3100

I CALLED RICH HILLS OF THE CENTRAL JERSEY REGIONAL ENVIRONMENTAL HEALTH AGENCY FOR MORE INFORMATION. HE SAID THAT THEIR INVESTIGATOR, AL LAURITSEN, WAS SENT OUT AFTER CALLS WERE RECEIVED AROUND 1:30 AM. CONCERNING ODORS IN THE SAYREVILLE - OLD BRIDGE AREA. MERCAPTO TYPE ODORS WERE EVIDENT IN THE SAYREVILLE - OLD BRIDGE AREA. FROM PREVIOUS EXPERIENCE THE INVESTIGATOR REALIZED THAT THIS ODOR WAS CHARACTERISTIC OF MERCK + CO. HE TRAVELLED NORTH AND COULD DETECT MORE OF THE SAME ODORS AS HE TRAVELLED. WHEN HE ARRIVED AT MERCK + CO. HE PICKED UP THE ODOR IN FRONT OF THE PLANT. HE WENT INTO THE PLANT AND WAS TAKEN TO THE SPILL SITE. IT WAS IN THE AREA BY BLDG. 54 OR 56. THERE WAS APPROXIMATELY 200 GALLONS OF SPILLED MATERIAL. HE WAS TOLD THAT A COMPUTER VALVE MALFUNCTION WAS RESPONSIBLE FOR THE SPILL.

D.W.M. ASSIGNED CASE NUMBER	82-10-25-001	Page 2 of 2
DATE	10-25-82	TIME 1605
		D.W.M. ID NO. 203

1555 10-25-82 REFERRED INFORMATION TO RESSIE  
JETER OF RAHWAY BD OF HEALTH 201-381-8000

1605 10-25-82 REFERRED INFORMATION TO MARY  
BUZBY OF RAHWAY VALLEY SEWERAGE AUTHORITY

G. Water

SP-2

82-11-3-8



# MERCK CHEMICAL MANUFACTURING DIVISION

MERCK & CO., INC. • P.O. BOX 2000 • RAHWAY, NEW JERSEY 07065 • (201) 574-4000

November 4, 1982

Mr. Tom Allen  
State of New Jersey  
Division of Waste Management  
120 Route 156  
Yardville, New Jersey 08620

Dear Mr. Allen,

This is to confirm our telephone conversation regarding the chemical sewer line break which occurred on 11/2/82 at our Rahway site. The damaged sewer line was one of two underground mains which carries effluent from a lift station to the on site equalization/neutralization area. At approximately 10:30 PM, pavement in one area of the plant was found to be cracked with effluent flowing from underground. The entire flow was then directed to the remaining sewer line. The pH of the effluent at the time of the break was 9.1. Though an exact composition is not known, past analyses have shown concentration in the 0-50 ppm range of typical widely used solvents such as toluene, methanol, acetone etc.. An excavation has been made and the sewer main will be repaired.

Should you have any further questions regarding this matter, please give me a call at (201) 574-5361.

Very truly yours,

*Tom Puchalski*

Tom Puchalski  
Manager  
Environmental Control

/ms

cc: Mr. Robert Kobiella, U.S. EPA, Emergency Response Section  
Mr. Paul Harvey, N.J. DEP, Div. of Water Resources

INCIDENT REPORT

D.W.M. ASSIGNED CASE NUMBER	02-111-03-0015	HOT LINE	<input type="checkbox"/>	INDEXED	<input type="checkbox"/>
DATE	1/1/82	TIME (Military)	1220	D.W.M. ID NO.	1004

INCIDENT REPORTED BY:

NAME	Tom Puchalski			PHONE	201-574-5361
AFFILIATION	Merk & Co			CODE	<input type="checkbox"/>
STREET					
CITY	Rahway	STATE		ZIP CODE	

INCIDENT LOCATION:

NAME	Merk & Co			PHONE	
STREET	1126 E LINCOLN DR			UTM VERT	UTM HORIZ
CITY	Rahway	COUNTY	20	STATE	NJ
				ZIP CODE	

SOURCE OF SPILLED AND/OR DISCHARGED SUBSTANCE: ☐ Confirmed ☐ Alleged ☐ More Than 1 Source ☐

COMPANY NAME	Merk & Co			PHONE	
CONTACT	SAA			TITLE	
STREET				DEP COMPANY NO.	
CITY		COUNTY		STATE	
				ZIP CODE	

SUSPECTED SPILLED AND/OR DISCHARGED SUBSTANCE: ☐ Confirmed ☐ Alleged ☐ More Than 2 Substances

1. misc. solvents - see below				SUBSTANCE NO.	
AMOUNT SPILLED	UNK	UNITS		S/L/G/M	
2.				SUBSTANCE NO.	
AMOUNT SPILLED		UNITS		S/L/G/M	

DATE OF INCIDENT	1-1-82	TIME (Military)		TEMP.		WEATHER		WIND (Dir. & Vol.)	
SPILL ORIGIN	4/9 Transfer line							CODE	
CAUSE	line rupture							CODE	
WATER BODY AFFECTED	None							CODE	
ASSOCIATED FIRE AND/OR HAZARDS									

INCIDENT REFERRED TO:

AGENCY				PHONE	
CONTACT				AGENCY CODE	

PRIMARY D.W.M. INVESTIGATOR	NFA 1/1/82			FOLLOWUP	<input type="checkbox"/>
FOR FURTHER ACTION				DATE	1/1/82

REMARKS:

4/9 waste stream line between equalization basins and lift station ruptured, forcing liquid to surface. Flow was diverted upon awareness. Previous analysis shows the material to be misc. solvents at 25-50 ppm with a pH of 8.1. Line to be excavated & appropriate repairs made. (Local Health Officer, Mr. Puchalski will report incident to EPA also. Deigo responding



H w m

# MERCK CHEMICAL MANUFACTURING DIVISION

MERCK & CO., INC. • P.O. BOX 2000 • RAHWAY, NEW JERSEY 07065 • (201) 574-4000

February 13, 1980

Mr. Dennis Faherty  
Hazardous Substances Control  
120 Route 156  
Yardville, New Jersey 08620

Dear Sir:

On February 7, 1980 a leak developed at the weld on a 20,000 gallon sulfuric acid storage tank. Approximately 50 gallons acid spilled to the ground, where it was immediately neutralized with soda ash by the emergency spill protection crew. The entire spill area drains to the chemical sewer system. Mr. Charles Johnson, Raritan Interstate Basin, observed the neutralization process.

The tank has been temporarily repaired and is back in service on a temporary basis. A new storage tank will be installed nearby within two months and the existing tank will be removed as scrap.

While we regret the spill, it is noteworthy to report on the response by the fire emergency spill crew. Major spills can be minimized by their effective efforts.

Yours very truly,

B. W. Hartelius  
Environmental Control Manager

BWH:tlr

cc: Mr. Charles Johnson  
Division of Water Resources  
Raritan Interstate Basin  
P. O. Box CN-029  
Trenton, New Jersey 08625



by Ansel Adams in *This Is the American Earth*

## SIERRA CLUB

250 West 57th Street • New York, N.Y. 10019

May 20, 1971

RECEIVED  
MAY 25 1971  
U.S. DEPT. OF ENVIRONMENTAL PROTECTION  
BUREAU OF WATER POLLUTION CONTROL

Mr. Dan Marchishian  
Environmental Protection Agency  
Federal Water Quality Administration  
Edison, New Jersey 08817

Dear Mr. Marchishian:

This is to confirm our telephone conversation of today concerning cyanide discharges by the Merck Company of Rahway, New Jersey.

We were informed yesterday that the following amounts of cyanide, measured in milligrams per liter, were released into the Rahway River over the last few weeks:

.17	.96
.11	.46
.34	.16
.53	.25
1.12	.14
.69	.11
.50	

Our source stated that Building 92, manufacturing TBC, a chemical to kill parasites in chickens, is the originator of these discharges. The above figures represent concentrations for the river. The samples were taken right next to the plant.

We hope this information will help you in your efforts to clean up our waters.

Sincerely,

*Karin Wurtz*

Karin Wurtz  
Administrative Assistant  
Conservation Department

cc - District Office, Army Corps of Engineers, New York City  
Mr. John Gaston, New Jersey Department of Environmental Protection

PRELIMINARY ASSESSMENT FILE SEARCH

NJDEP

DIVISION OF WATER RESOURCES:

- A. Enforcement ☒ \_\_\_\_\_
- B. Groundwater ☒ \_\_\_\_\_
- C. Other \_\_\_\_\_
- } Central File

DIVISION OF WASTE MANAGEMENT:

- A. HSMA \_\_\_\_\_
- B. Enforcement ☒ (Central Region) \_\_\_\_\_
- C. Solid Waste ☒ (Hazardous Waste Engineering) - Jim Bell. \_\_\_\_\_

ENVIRONMENTAL QUALITY:

- A. Air Pollution \_\_\_\_\_
- B. Pesticides \_\_\_\_\_
- C. Other \_\_\_\_\_

DIVISION OF FISH AND GAME: \_\_\_\_\_

OFFICE OF SCIENCE AND RESEARCH: \_\_\_\_\_

- A. Industrial Survey ☒ Rose Tuccillo \_\_\_\_\_
- B. Other \_\_\_\_\_

N.J. DEPARTMENT OF HEALTH: \_\_\_\_\_

LOCAL AUTHORITIES:

- ① Lakewood Health Department, Inspector Buchanan
- A. Health Department ② Linden Health Department, Mr. H. Gowan, Health Officer. \_\_\_\_\_
- B. Town or County Clerk \_\_\_\_\_

UNITED STATES GOVERNMENT:

- A. EPA ☒ Paul Elliott's Files (EPA EMERGENCY RESPONSE FILES) \_\_\_\_\_
- B. other \_\_\_\_\_